DOCUMENT RESUME

ED 170 522 CE 020 602

TITLE	New Directions in International Health Cooperation: A Report to The President.
INSTITUTION	Executive Office of the President, Washington, D.C.
PUB DATE	78
NOTE	379p.; Parts may be marginally legible due to light type
AVAILABLE FROM	Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 (Stock Number 040-000-00404-1)
EDRS PRICE	MF01/PC16 Plus Postage.
DESCRIPTORS	*Cooperative Planning; *Economic Development; Federal Aid; *Federal Programs; Financial Support; Foreign Countries; Foreign Policy; Global Approach; Health Activities; Health Needs; Health Personnel; *Health Programs; Human Services; *International Programs; International Relations; *Policy Formation; Program Development; Reports
IDENTIFIERS	United States

ABSTRACT

This report inventories the U.S. federal government's current expenditures of resources for international health and considers ways of better resource utilization and coordination. Presented in eight chapters, the report considers three major issues: (1) how governmental and multilateral development strategies could be reoriented to affect health, (2) how the international health assistance welfare image could be dispelled and its economic development aspects emphasized, and (3) how individuals and organizations could be motivated to action at the grassroots level. In each chapter problems/constraints are examined, and recommendations are made for improved health services. Chapter 1 reviews the foundations for U.S. international health policy. The second chapter discusses international relations and health diplomacy. Chapter 3 emphasizes the importance of improving health care in the U.S. The following chapter explores the role of the private sector in international health. Chapter 5 provides a perspective on financial and commercial aspects of international health, and U.S. research efforts and their relationship to international health are investigated in chapter 6. Chapter 7 discusses U.S. foreign supporting assistance and its accompanying developmental strategy which emphasizes growth and coordination of basic human needs policy with U.S. human rights policy. The final chapter examines conditions that influence the availability of health manpower resources for international health programs. (CSS)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED170522

NEW DIRECTIONS IN INTERNATIONAL HEALTH COOPERATION

A REPORT TO THE PRESIDENT

THE WHITE HOUSE·SPRING 1978

CE 020 602

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

THE WHITE HOUSE
WASHINGTON

President Jimmy Carter
The White House
Washington, D.C.

Dear Mr. President:

I hereby respectfully submit to you the report on United States activities in international health.

This report is the result of over a year's concentrated effort with the aid of numerous people in Government and the private sector. It presents, for the first time, an overview of all aspects of the Government's activities in international health.

As the very need for this report shows, our Government's efforts in international health, while substantial, have been heretofore piecemeal and uncoordinated. There has been in the past no effective overall U.S. international health policy. While such a policy would be important at any time, this Administration, with its strong commitment to the fulfillment of human rights at home and abroad, should continue to strengthen its effort to guarantee this major human right: the right to health. Hundreds of millions of the world's poor are suffering from preventable and curable diseases. As a result, they lack the health and well-being to enjoy productive lives – and to exercise their other human rights.

The United States has now renewed its determination to improve world health. I believe that this report will be an important first step toward that goal.

In addition to presenting an overview of the area, this report makes many recommendations for improved activity, and should serve as a basis for the development of a unified and effective long-range U.S. effort.

Respectfully yours,

Peter G. Bourne

Peter G. Bourne, M.D.
Special Assistant to
the President for
Health Issues

Foreword

President Jimmy Carter's Message
to the Thirtieth World Health Assembly
Geneva, Switzerland
May 9, 1977

I want to commend the outstanding work of the World Health Organization, under the leadership of Dr. Halfdan Mahler. Public health has been a particular concern of mine for many years. My mother is a nurse, and my wife is deeply committed to improving health services.

During my lifetime, science and technology have brought under control a number of diseases that once weakened, crippled, or killed people throughout my home state of Georgia.

But many parasitic and infectious diseases remain, even in a country such as ours. In some areas of the southeastern United States, more than 25 percent of the children suffer from intestinal parasites.

The situation is far worse, of course, in countries which have not yet reached the technical and scientific levels made possible by our abundance of natural resources. In the developing countries of Asia, Africa, Latin America, and the Middle East, some two billion people live with the constant threat of malaria, schistosomiasis, leprosy, measles, yaws, and other terrible diseases.

Malnutrition and high population growth rates complicate the problems of health care – and the chief sufferers are children.

In Upper Volta, to pick one tragic example from many, the mortality among children 5 years and under is close to 50 percent.

These questions affect us all, since increased international travel hastens the spread of disease throughout the world. But a greater degree of cooperation between scholars and scientists of all nations can slow that spread, and even wipe out certain diseases altogether. Smallpox, for example, is almost eradicated except for Somalia.

In my speech to the United Nations General Assembly several weeks ago, I emphasized our commitment to basic human rights. These include the right of every human being to be free from unnecessary disease.

To work toward that right, we will offer to share our medical know-how with all nations, regardless of politics or ideology. We will work together to control disease, improve nutrition, and raise the quality and productivity of life throughout the world.

The United States is ready to help develop a truly international program to identify and report epidemic and endemic diseases. We will work with the World Health Organization, as well as with individual countries, in a global effort to give early warning of impending disease outbreaks.

The gap in health and productivity between developed and developing nations is bound to increase political and social instability in the world.

In some measure this gap is due to unequal distribution and consumption of food, energy, and water. We know the economic and social consequences to other nations of our own waste of nonrenewable energy resources, and we are determined to correct this situation.

We also know that health and economic development are closely linked. The child with malaria often misses school. The anemic worker, with a parasitic infection, is less productive than he should be. We need to pursue programs which break this cycle of poverty, disease, and hunger.

I will strive personally to find ways in which our government and the private sector can better cooperate with other nations on health, population, and nutritional needs.

The United States supports the World Health Organization's expanded immunization program. My country has pioneered in the development of polio and measles vaccine, and will continue to support vaccine research.

My country also supports the bold and innovative new program of research in tropical diseases being developed in cooperation with the World Health Organization. These efforts will bring us closer to our goal: a world in which all people can live free from fear of crippling and debilitating diseases.

The preamble of the World Health Organization's constitution says, "The enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being."

The United States will do its best to bring that right within the reach of all.

–THE PRESIDENT OF THE UNITED STATES

Contents

		Page
Foreword		V
List of Acronyms		XI
List of Figures		XIV
List of Tables		XVI
Preface		XIX
The Study Process and Acknowledgments		XXVII
Executive Summary		1
Chapter 1	**Foundations for U.S. International Health Policy**	35
	The World Health Situation	37
	U.S. Involvement in International Health	39
	Current U.S. Activities..............................	40
	Toward a U.S. International Health Policy	41
Chapter 2	**International Relations and Health Diplomacy**	42
	Basis for the Relationship Between International Health and International Relations	42
	Global Problems Affecting Health	45
	Current U.S. Government Organizational Activities in International Health	49
	Conditions Influencing U.S. International Health Policy and Program Implementation	54
	Conclusions About International Relations and Health Diplomacy	58
	Chapter 2: Appendix – International Health Organizations and Financial Institutions	63
Chapter 3	**Health of U.S. Citizens**	65
	Federal Involvement in Domestically Related International Health	66
	Aspects of International Involvement in U.S. Health Services	75

Access to Health Services 75
What Can Be Learned From Other Nations 76
Preventive Health Services and International Health Activities 77
Scientific and Professional Cooperation 80
Conclusions and Recommendations 81

Chapter 4 **Private-Sector Involvement** 84
Diversity of Private Voluntary Organizations 86
Role of PVOs 89
PVO Accomplishments 90
Current Limitations to PVO Activity 90
PVOs and Their Impact on International Health 93
Recommendations Concerning PVOs 93
Labor Organizations and Their Role in International Health 97
Limitations to Labor's Involvement in International Health and Some Future Directions 99
The Universities and International Health 100
Limitations to University Activities in International Health 101
U.S. Universities and Their Potential Contributions to Solving World Health Problems 104
Private Foundations and Their Role in International Health 105
Scope and Diversity of Current Private Foundation Activities 105
Private Foundation Achievements 108
Limitations to Foundation Activity 111
Private Foundations and Their Potential Future Role in International Health 113
Corporations: General Information and Brief Description of Their Involvement in International Health Activities in Developing Countries 114
Limitations to Corporate Involvement in International Health 117
Growth Possibilities for Corporations and International Health 117
Recommendations 118

Chapter 5 **Financial and Commercial Aspects of International Health** 120
The U.S. Government and Financial and Commercial Aspects of International Health 120
Goals and Objectives of the United States in Financial and Commercial International Health Transactions 122
U.S. Policy and Program Issues in Financing International Health 122
A Mixed Strategy for International Health Assistance 128
The Role of U.S. Corporations in International Health 129
Growth of International Health Commerce 135

Chapter 6 **U.S. Research and International Health** 144
U.S. Government-Supported International Health Research 145
Legislative Authorities for Government Support of International Health Research 147
Mechanisms for Funding International Health Research . . . 148
Mechanisms for Review, Priority Setting, and Coordination of Government-Supported International Health Research 150
Cooperation With WHO in International Health Research . . 151
Health Research Pertaining to Developing Countries by the U.S. Pharmaceutical Industry 153
Research into Health Service Delivery 154
Recommendations Concerning International Health Research 155
Chapter 6: Appendix A – International Medical Research Conducted by Nonmilitary U.S. Organizations 159
Chapter 6: Appendix B – Department of Defense Overseas Research 167
Chapter 6: Appendix C – WHO/UNDP Special Program for Research and Training in Tropical Diseases (TDR) and WHO Expanded Program on Immunization (EPI) 170

Chapter 7 **Development and Supporting Assistance** 174
Major Principles of International Health Assistance 177
Approaches to Health Assistance 179
Effects of Financial and Technical Health Assistance on Developing Countries 180

Current Programs in International Health Assistance 181
Multilateral Organizations Engaged in Health Assistance 181
U.S. Bilateral Assistance 184
Goals of International Health Assistance 191
Integration of International Health Policy and Projects 195
Programmatic Aspects of Health Assistance 196
Difficulties of Implementing International Health Policy and Programs 205
Some Suggestions for International Health Through Development Assistance Channels 209

Chapter 8 **Health Manpower for International Health Programs** 211
U.S. Government Use and Training of International Health Manpower 212
U.S. Schools and International Health Manpower 216
Health Manpower Migration and U.S. Supply 219
International Health Manpower: Supply and Distribution 221
A U.S. Policy on International Health Manpower 225
Policy Management and International Health Manpower 233

References for Chapters 1-8 235

Appendixes 239

List of Acronyms

AAFLI	Asian-American Free Labor Institute
ADAMHA	Alcohol, Drug Abuse, and Mental Health Administration
ADB	Asian Development Bank
ADF	Asian Development Fund
AFDB	African Development Bank
AFDF	African Development Fund
AID	Agency for International Development
APHA	American Public Health Association
BIC	Bureau of International Commerce
BOB	Bureau of Biologics
CASOP	Workers and Peasants Solidarity Fund (Zaire)
CDB	Caribbean Development Bank
CDC	Center for Disease Control
CIA	Central Intelligence Agency
CMRT	International Centers for Medical Research and Training Programs
DAC	Development Assistance Committee
DIBA	Domestic and International Business Administration
DOD	Department of Defense
DOT	Department of Transportation
EB	Economic and Business Affairs Bureau (State)
ECOSOC	United Nations Economic and Social Council
EPA	Environmental Protection Agency
EPI	Expanded Program on Immunization
ERDA	Energy Research and Development Administration (now Department of Energy)
FAA	Federal Aviation Administration
FAO	Food and Agricultural Organization
FDA	Food and Drug Administration
GATT	General Agreement on Tariffs and Trade
GML	Gorgas Memorial Laboratory
GNP	Gross National Product
HCFA	Health Care Financing Administration
HEW	Department of Health, Education, and Welfare
HRA	Health Resources Administration
HSA	Health Services Administration
IARC	International Agency for Research on Cancer

IBRD	International Bank for Reconstruction and Development
ICMR	International Centers for Medical Research
IDA	International Development Association
IDB	Inter-American Development Bank
IDLIs	International Development Lending Institutions
IFIs	International Financial Institutions
ILO	International Labor Organization
IMF	International Monetary Fund
IMR	Institute for Medical Research (Malaysia)
IO	Bureau of International Organizational Affairs (State)
IOM	Institute of Medicine
JHCMR	Johns Hopkins Center for Medical Research
LSU	Louisiana State University
MUCIA	Mid-western Universities Consortium for International Activities
NAE	National Academy of Engineering
NAS	National Academy of Sciences
NASA	National Aeronautics and Space Administration
NATO	North Atlantic Treaty Organization
NBS	National Bureau of Standards
NCHS	National Center for Health Statistics
NCHSR	National Center for Health Services Research
NCI	National Cancer Institute
NDA	new drug application
NHLBI	National Heart, Lung, and Blood Institute
NIAID	National Institute of Allergy and Infectious Disease
NIAMDD	National Institute of Arthritis, Metabolism, and Digestive Diseases
NICHD	National Institute of Child Health and Human Development
NIEHS	National Institute of Environmental Health Sciences
NIH	National Institutes of Health
NOAA	National Oceanic and Atmospheric Administration
NRC	National Research Council
NSF	National Science Foundation
ODA	official development assistance
OECD	Organization for Economic Cooperation and Development
OES	Bureau of Oceans and International Environmental and Scientific Affairs (State)
OFDA	Office of Foreign Disaster Assistance (AID)
OIH	Office of International Health (HEW)

OPEC	Organization of Petroleum Exporting Countries
OPIC	Overseas Private Investment Corporation
OSTP	Office of Science and Technology Policy
PAHO	Pan-American Health Organization
PC	Peace Corps
PCVs	Peace Corps Volunteers
PHS	Public Health Service
PIEGO	Program for International Exchange in Gynecology and Obstetrics
PVOs	private voluntary organizations
RDD&A	research, development, demonstration, and application
RFP	request for proposal
RSA	Rehabilitation Services Administration (HEW)
SDRs	special drawing rights
SMRL	Southeast Asia Medical Research Laboratories
S/P	Policy Planning Staff (State)
STAC	Scientific and Technical Advisory Committee
SWG	Scientific Working Group
TCDC	Technical Cooperation Among Developing Countries
TPR	Special Program for Research and Training in Tropical Diseases (WHO)
UC	University of California
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Program
UNEP	United Nations Environmental Program
UNESCO	United Nations Education, Scientific, and Cultural Organization
UNFDAC	United Nations Fund for Drug Abuse Control
UNFPA	United Nations Fund for Population Activities
UNICEF	United Nations Children's Fund
UNRWA	United Nations Relief and Works Agency for Palestine Refugees in the Near East
UNVP	United Nations Volunteers Program
USIA	United States Information Agency
VA	Veterans Administration
WFP	World Food Program
WHA	World Health Assembly
WHO	World Health Organization

List of Figures

Page

Figure 1. U.S. Government Role in International Health . . . . Enclosure (back of book)

Figure 2. Medical Diplomacy and Diplomatic Relations 48

Figure 3. Proposed Medical Diplomacy Process Model 50

Figure 4. Total and Percent of Gross National Product Spent on Health for Calendar Years 1940-73 67

Figure 5. Public and Private Health Expenditures for Fiscal Years 1950, 1965, and 1976 68

Figure 6. Federal Agencies Responsible for Health Protection of U.S. Citizens 70

Figure 7. Current Levels of PHS Manpower Engaged in International Activities 72

Figure 8. Legal Distinctions in Private Sector 85

Figure 9. Foreign Sales of Ethical Pharmaceuticals by U.S. Firms, 1963-74 134

Figure 10. Official Development Assistance of United States in Comparison With All Other DAC Countries, 1965-75 182

Figure 11. Official Development Assistance of the United States and All Other DAC Countries, as Percentage of GNP, 1965-75 183

Figure 12. Safe Landmarks for Human Reproduction 201

Figure 13. ACTION 271

Figure 14. Agency for International Development 273

Figure 15. Department of Agriculture 277

Figure 16. Department of Commerce 279

Figure 17. Department of Defense 281
Figure 18. Department of Energy 283
Figure 19. Department of Health, Education, and Welfare 284
Figure 20. Department of the Interior 293
Figure 21. Department of Labor 295
Figure 22. Department of State 297
Figure 23. Department of the Treasury 299
Figure 24. Environmental Protection Agency 301
Figure 25. Veterans Administration 312

List of Tables

Page

Table 1. Federal Outlays for Medical and Health-Related Activities by Agency, 1977 (in Millions of Dollars) 69

Table 2. Private Foundations With International Health Activities by Rank, Assets, and Commitments in 1975 106

Table 3. Percent Contribution of Various Private Foundations to International Activities in 1976 107

Table 4. Selected Private Foundations According to Commitments for Health, Nutrition, Population, and All Purposes 107

Table 5. U.S. Exports and Imports of Medicines and Medical Supplies, and Countries of Destination and Origin Grouped by 1976 Income Levels 131

Table 6. International Health Research Supported by Six U.S. Government Agencies, FY 1976 and FY 1977 (in Thousands of Dollars) 145

Table 7. Federally Funded Health Research Pertaining to Developing Countries by Category in FY 1977 (in Thousands of Dollars) 146

Table 8. Selected Tropical Disease Expenditures by Category, FY 1977 (in Thousands of Dollars) 152

Table 9. Army and Navy Overseas Medical Research Units 168

Table 10. Health Characteristics in Selected World Areas and Countries, 1977 176

Table 11. Bilateral Development Assistance by U.S. Government Agencies . . 186

Table 12. U.S. Health-Sector Development Assistance by Program Area, FY 1976 (in Thousands of Dollars) 187

Table 13. AID Population Planning and Health Programs – Obligations/Loan Authorizations/Planning Levels, FY 1965-78 (in Millions of Dollars) 190

Table 14. Relationship Between Poverty, Poor Nutrition, High Mortality, High Birth Rates, and Short Life Expectancy in Five Groups of Nations 192

Table 15. Distribution of AID Staff and Field Personnel 207

Table 16. Concentration of Peace Corps Trainees' Skills in Health Jobs, 1970-75 (by Percent) 212

Table 17. Programs of John E. Fogarty International Center for Advanced Study in the Health Sciences 214

Table 18. Number of Foreign Nationals Trained in Health by DOD, FY 1977 216

Table 19. New Entries of Immigrant and Nonimmigrant Physicians Into the United States, by Continents, 1965-73 219

Table 20. Health Manpower Admitted to the United States, 1973-75 220

Table 21. Medical and Dental Manpower in WHO Regions, 1972 222

Preface

As we approach the end of the twentieth century, we may appropriately ask what kind of world we envision in the years to come and what we see as the role of the United States in that world. For 200 years, we have espoused to other nations our belief in the right of all people to enjoy "life, liberty, and the pursuit of happiness." Yet, too often, our foreign policy has been guided not by this idealistic philosophy, which has gained us admiration and respect throughout the world, but by a narrow set of national, economic, and military principles, which have hardly served to distinguish us from our ideological adversaries.

For many years those who directed our foreign policy came predominantly from a privileged, generally wealthy segment of our society. Their opinions naturally derived from their socioeconomic background, and their view of the world, as well as their conduct of foreign policy, reflected the perceptions and interests one might expect from that orientation. Not only were minorities almost entirely excluded from the foreign service, but as long as racial prejudice was a way of life in the United States, similar discrepancies characterized the relationship between this country and the nonwhite nations constituting a majority of the global population. There was a tendency not merely to view the developing world with the same degree of prejudice, but to regard concern about human needs as "unconventional diplomacy." Consequently, such concerns were relegated to a relatively unimportant role.

Beginning perhaps 20 years ago, and culminating with the harsh reality of the Vietnam War, we began to recognize the shortcomings of even the most fundamental assumptions of our foreign policy. We are now slowly evolving a new philosophy for our conduct in the world, a role for which there is no historical precedent.

Our military and economic supremacy have been increasingly called into question. They are no longer appropriate as the sole rationale for our leadership in the world. Instead, our credibility now rests increasingly on our moral leadership, our commitment to the primacy of the individual, and our ability to rally other nations to deal with those fundamental human problems that afflict all mankind. The world affords us respect because of our concern for humanity and our mastery of science and technology which offer people everywhere hope for a better life. As President Carter said in his inaugural address, "I would hope that the nations of the world might say that we had built a lasting peace, based not on weapons of war, but on policies which reflect our own precious values."

Indeed, the world has changed dramatically since World War II and our posture in this world must continue to be revised accordingly. We need only look at the changing environment in which we live to recognize the extraordinary impact certain events have had upon our lives.

Among those who grew up before World War II, there was a belief that the United States and the world possessed an unlimited supply of natural resources, and that the land and sea could absorb our waste. Such an optimistic view can no longer apply. We now see that the world is a finite entity. Without proper management, the limited resources on which future generations must depend will be squandered. All nations will be impaired. A clear image of our circumstances comes from the picture of earth which our astronauts took from the moon. It reaffirmed in our minds that we are on a small, finite planet surrounded by the immensity of space.

Today, nuclear power threatens the human race in a way that earlier generations never dreamed of. The need for peace among all nations has been thrust upon us by our history.

In the past, people had a tendency to remain near their place of birth, and international travel was a rare experience. There was little familiarity with or understanding of people in other nations and other cultures. Now the ease of travel, which today makes every corner of the globe accessible within 24 hours, and remarkable improvements in telecommunications have shrunk the globe so that other nationalities are no longer seen as distant and alien. Cultural differences are diminishing and the term "international community" has become meaningful. We perceive that the forces which draw us together are incomparably greater than those which drive us apart. Although racial and religious differences still stir violent hatred and armed confrontations, fear and ignorance no longer lead us to divide the world into "we," the culturally, racially, and politically similar, and "they," the vast majority of the world who are not like us.

Our role in the world and that of other nations must be one in which we set aside narrow limitations of national prejudice and see ourselves as part of a world community, dependent upon a single, finite body of resources, where the greatest threats are threats to the survival of not just a single nation, but of all mankind. The United States can assume the responsibility of building worldwide belief in the reality of global interdependence. Our nation is unique in having a set of principles and ideals based on the fundamental rights of man, and for 200 years we have struggled to maintain an open and free society, one mindful of this philosophical base. As a result, an overwhelming majority of people throughout the world consistently look to us as the single best hope for a better existence.

We can affirm, too, that no matter what political structure they live under, people everywhere share certain basic needs and aspirations. These include freedom from hunger, from physical suffering, from war, from disease, from pollution of the environment, and from servitude to others; adequate shelter; desire to see their children grow and have better opportunities than their parents; the ability to improve their lot in society through merit and hard work; the opportunity to learn, to travel freely, to enjoy the benefits of technology and civilization; and the time to appreciate life lived to the fullest. We realize our humanity through these common aims irrespective of political ideologies which divide us.

We are well aware that one-fourth of the world's population or one billion people, live in absolute poverty, on the edge of starvation, and without access to even the simplest form of health care. In several African countries, 50 percent of all children die before age 5. Throughout the developing world, 10 million children under 5 years old suffer from severe protein and caloric deficiency. More than 250 million people a year contract malaria and 200 million people, or as many as the entire population of the United States, suffer from schistosomiasis. In Africa each year, a million children die from measles, and less than 10 percent of the 80 million children born each year in the world receive immunization against preventable diseases. Cyclical famines still kill tens of thousands in the developing world. We in the United States cannot ignore such tragedies.

In fact, we can address these problems, which indeed are solvable, if we are willing to give them a high enough priority. There is, for example, sufficient food produced in the world. With proper management and distribution of food,we could eliminate world hunger. We also have the scientific and technological potential to provide a basic minimum level of health care for everyone in the world by the year 2000. The key issue is not adequate technology but rather the will to achieve humanitarian goals.

Some will dismiss these thoughts as idealistic and argue instead that such goals do little to serve the real national interests of the United States. However, a world in which people everywhere are healthy and adequately fed will be a world inherently satisfactory to the interests of the United States. Economically self-sufficient nations will no longer burden the United States and other developed countries; they can become viable markets for U.S. exports. Conversely, in a hungry, angry, and often bitter world we can hardly achieve vital foreign relations objectives. We are less able to reduce the buildup of conventional weapons, control the proliferation of nuclear arms, defuse international terrorism, protect our economic and security interests in outer space, or promote the advancement of human rights, for political instability in one nation threatens the peace and economic progress of all nations.

President Carter's commitment to deal with basic human needs throughout the world is firm. In his inaugural message, he pledged support to "guarantee the basic right of every human being to be free from poverty and hunger and disease and political repression."

While the United States must accept the great responsibility for meeting the basic needs of mankind, we believe this goal can best be achieved if it is a shared goal. All nations and all international organizations must acknowledge their responsibility by giving increased attention to the poorest of this world. We can readily see how efforts at building new economic infrastructures have sometimes helped the elite of a country, and resources frequently have been slow to reach the poorest citizens. Our country's concern for human rights, therefore, extends not only to those who are brutally tortured, murdered, or detained without trial, but also to those who are deprived of the basic amenities of life by ruling classes who retain for themselves the bulk of economic development and assistance benefits in their nations. We cannot assume our responsibilities, if we watch the poor people of rich countries being taxed to benefit only the rich people of poor countries. In our bilateral discussions, and through the United Nations and associated agencies, we must attempt to ensure that more programs are aimed directly at the world's poorest and that concomitant benefits actually reach the poor.

Several issues merit consideration as we decide how to reach the world's billion poorest people. There is the issue of whether we approach the problems of poverty by focusing on select fields such as health, housing, water supplies, or food production, or whether we should tackle many problems simultaneously. There is also the issue of the extent to which our assistance is conditioned (that is, limited or increased) by the attitudes and actions of recipient countries as they attempt to solve their problems.

Focus on Health

The field of health (including nutrition and family planning) offers perhaps the best and most immediate opportunity to change the basic quality of life for poor people in the world. Also, to the extent that any international issue is free from political pressures, providing adequate health care enjoys almost universal support.

The United States can readily contribute to the betterment of world health because of its long tradition of involvement in international health matters. In part, this involvement can be traced to battles against malaria, yellow fever, and other diseases which still afflict the developing world and which have until recently also been problems within the United States. The nations of northern Europe, while free of these diseases, did have vast colonial empires to stimulate interest in tropical medicine. From this interest were founded the London School of Tropical Medicine and the Institutes Pasteur in Paris and in French colonies.

Although self-interest contributed to our concern about health in other nations, this concern has grown primarily from our longstanding cultural tradition of broad humanitarianism. Attempts led principally by Senator Hubert Humphrey in the early fifties to establish a major role for the United States in meeting the basic human needs of people achieved moderate success. In 1958 Senator Humphrey returned from a trip to Europe and in a landmark report, *The U.S. Government and the Future of International Medical Research,* extolled the many benefits to be derived from a strengthened global health policy. Yet there were many who opposed the notion of such a policy as too idealistic. It could not possibly achieve its professed potential, they argued. This initial inquiry was followed by others, but without sufficient support these efforts did not result in major changes in U.S. international health activities

We continue to ask ourselves, What should be the role of the United States in international health? What is unique that we can offer to the rest of the world?

We no longer have the virtual monopoly that we once had in medical technology, yet we still possess resources in the health field that far exceed those of the rest of the world. Our moral leadership and commitment to humanitarian concerns have continued to give us singular acceptance in the developing world. We have resources within the Federal Government to allow us to provide to the developing world direct support, including technical assistance for the implementation of health care programs. We have unique institutions, such as the Center for Disease Control in Atlanta, which can provide epidemiological support to countries throughout the world. Within the private sector, we possess the capacity to train large numbers of health-care personnel either in this country or overseas. We also have in our academic institutions, foundations, and pharmaceutical industry the greatest aggregation of medical research talent in the world. Through government support of appropriate priorities, these gifted scientists can make significant new contributions toward eliminating the remaining major cripplers and killers of the developing world.

To be effective in our commitment to international health, we need to see a willingness among nations of the developing world to cope with their own health problems. In the past they too often have exhibited a sense of hopelessness in fighting the remaining major diseases and other health problems besetting them. Their resources seemed meager in contrast to their problems. As a result, many countries expressed quiet resignation about endemic diseases. Because such diseases were seen as a permanent burden, public health programs were often given low priority by most governments.

In the last few years, this attitude has changed dramatically. Although a product of many factors, the change is substantially due to the extraordinary success of the worldwide smallpox eradication program mounted by the World Health Organization. Apart from the remarkable and laudatory accomplishment of eliminating smallpox, this program had a secondary and perhaps even more important side effect. Health planners and policy makers everywhere realized that the great scourges of mankind were not insurmountable, that careful marshalling of resources and planning could result in solutions to other health problems that had long been taken for granted. We have seen, over a relatively short period of time, a move in many developing countries toward effective, long-range health planning aimed at eradicating or controlling major diseases and providing basic health services within a fixed time frame.

Increasingly, too, health is being given higher priority by heads of state than it has received in the past. There is enhanced recognition of the impact a nation's health can have upon its economic development; particularly in socialist countries, the provision of adequate primary health care is seen as an increasingly important responsibility of government.

Ironically, we often have had to advocate an approach to health care delivery in the developing world that we have not been able to implement in our own country. For example, with limited numbers of physicians, developing countries need to rely heavily on the use of paraprofessional health workers, rather than focusing as we have done in this country on expensive tertiary care.

For the United States, the gains from the elimination of a disease such as smallpox can be great. Today, we no longer need to vaccinate against smallpox, a saving of $140 million dollars a year or more than three times our annual contribution to WHO.

Thus our successful attack against smallpox has advanced us to a new era, one in which we can eliminate most of the remaining major scourges of mankind. Our country can join with other nations, and work toward the goal of providing by the year 2000 a basic minimum level of health care for all people.

Mobilizing U.S. Resources

To enable the United States to maximize its role in achieving international health goals, President Carter instructed that a comprehensive study be made of the international health activities of the U.S. Government. The study was to focus primarily on the role of the U.S. Government in international health and the extent to which the current level of effectiveness could be significantly improved.

We attempted, as a first priority, to survey and inventory current U.S. Government activities in the area of international health, including legislative authorities, budget allocations, and the various international health policies and programs presently in operation. At the same time, we began an assessment of the remaining major health problems of the world and the extent to which current U.S. efforts are aimed at addressing those problems. In addition, we examined the extent to which international health is integrated into other governmental activities, including the formulation of foreign policy, domestic health policy, development assistance, and commercial and trade policy. An effort was also made to study existing coordinating mechanisms and to make recommendations as to how these could be improved, particularly with regard to long-range planning and goal setting. Special emphasis was placed on how a major new initiative in this area might be created. Finally, we attempted to review in general terms the extraordinary resources of the private sector, especially the academic community, church-related organizations, and other voluntary organizations, and how those resources could be more effectively coordinated with U.S. Government activities.

In this report the term "international health" refers to a broad range of often poorly defined activities. We attempt to show that the interests of the United States should be concentrated primarily on: elimination of the remaining major infectious diseases afflicting mankind (those diseases deriving principally from poor sanitation and malnutrition and found mainly in the developing world); better access worldwide to a basic minimum level of health care, including nutrition and family planning services; pooling of knowledge and fostering of collaborative research activities to advance medical science; use of medicine as a medium to improve relations among nations, apart from traditional political channels; and development of appropriate overseas uses for products and services of the American health industry.

Despite our reduced level of development assistance, measured by a decline in the percentage of our gross national product assigned to this area, there has nevertheless been a gradual increase over the last 10 years in the involvement of the U.S. Government in the international health field. According to this study, some 22 agencies, with a total budget of $528 million a year, contribute to international health. However, growth has been piecemeal, and because of the ambivalence of recent administrations to the whole area of foreign aid, there has been no overall initiative to coordinate or plan how fragmented efforts could be brought together into a coherent program. Many international health programs have been initiated, and clear policies have been established in certain areas. For example, the Center for Disease Control and the National Institutes of Health, with their worldwide reputation for excellence, have contributed significantly to the improvement of health for all mankind. Other efforts to relate the performance of our scientific institutions to problems of international health can attain comparable results.

In summary, government action directed at dealing with humanitarian issues has traditionally been viewed as "unconventional diplomacy" by our State Department, and humanitarian considerations have never been incorporated into the overall formulation of foreign policy. Moreover, in the last 8 years, international health has been accorded a relatively low priority even in the development assistance field. There have been exceptions such as U.S./Soviet medical collaboration.

As a result of this landmark report, we anticipate greater understanding of the important role of the United States in the international health field, one which will grow substantially in the coming years. It will reaffirm our commitment to improving the quality of life for people everywhere and, through better evaluation and coordination of the use of our existing resources, significantly increase the effectiveness of the U.S. role. Furthermore, this report is intended to encourage a close partnership between the government and the private sector so that their collective resources can more efficiently complement one another. We hope also that this report will foster certain specific actions which will symbolize the special commitment of President Jimmy Carter, the government, and the people of the United States: the desire to reduce ill-health and suffering of people throughout the world.

— Peter G. Bourne, M.D.

The Study Process and Acknowledgments

The Study

A preliminary survey of the international health field in 1977 yielded some startling information. First, there was little knowledge about what the Federal Government was doing in international health and why, as well as how much money was being spent. Second, the subject of international health had only sporadically been considered by Congress in any comprehensive way over the past 30 years – despite the growth in the number of authorities and the size of expenditures. Furthermore, we learned that no specific definition of international health had ever been developed. This lack of understanding had implications for both accountability concerning the use of funds and management and evaluation of programs. We also found a rather narrow view of the benefits to be derived from support of international health programs on the part of government officials, despite evidence to the contrary.

These preliminary findings were brought to the President's attention. He then directed a comprehensive inventory and analysis of international health activities, in both the public and private sectors, to better understand international health and provide the basis for new directions the U.S. Government should follow in the near future.

The Process

A preliminary inventory of activities and early decisions regarding what the field of international health consists of enabled us to define the scope of our review, the agencies or organizations primarily and secondarily involved, and the relationships or potential relationships between groups involved in issues related to international health and their activities. A crosscutting study model was developed to ensure that throughout the process, agencies or organizations and activities were clustered and integrated to ensure comprehensiveness of assessments. Substantial private-sector consultation took place throughout the course of the study. Perhaps most important, this process began to encourage the coordination and exchange of information and ideas among leaders in government and the private sector, a strategy which continues to prove beneficial.

The Structure

Four working groups that reflected an integration of basic subject areas were identified as follows:

- Strategy development, which was divided into four functional working groups representing the following distinct areas of Federal responsibility in international health:

  - Development and supporting assistance;
  - Health of U.S. citizens and scientific and professional cooperation;
  - Commerce and finance;
  - Foreign policy and medical diplomacy;
- Research, development, demonstration, and application;
- Health manpower;
- Private-sector involvement, which was composed of these specific subunits:
  - Private voluntary organizations;
  - Foundations;
  - Universities;
  - Labor;
  - Corporations.

In sum, well over 100 professionals in and out of government participated in both the preliminary assessment and the more comprehensive study. We are deeply grateful for all their contributions to this project.

– Gerald A. Fill,
Study Director

Acknowledgments

Private-Sector Participants

Barry Bloom
Albert Einstein College of Medicine

Jarrett Clinton
Family Health Care, Inc.

Pat Cloherty
Alan Patrikof Associates

Niles Colwell
ALCOA

Edgar G. Davis, Jr.
Eli Lilly Corporation

Royce Diener
American Medical International, Inc.

Gary Filerman
Association of University Programs in Health Administration

David Freeman
Council on Foundations, Inc.

Willis Goldbeck
Washington Business Group on Health

Elizabeth Hilborn
Private Consultant

Jan Hottinga
Westinghouse Corporation

Arthur Hoyte
Georgetown Medical School

Irene Jilson
Policy Analysis, Inc.

Jay Kingham
Pharmaceutical Manufacturers Association

George E. Miller
University of Illinois College of Medicine

Russell Morgan
American Public Health Association

Jeremiah Norris
Family Health Care, Inc.

Matthew Perry
Pharmaceutical Manufacturers Association

Melvin Plancey
Atlantic Richfield Corporation

Lynne Pollack
Chase Manhattan Bank

J.S. Prince
Private Consultant

Norbert J. Roberts
EXXON

Nevin Scrimshaw
Massachusetts Institute of Technology

James Shannon
Private Consultant

Milton Siegel
Federation of World Health Foundations

George Silver
Yale University

Robert Slater
Harvard Medical School

Patricia Rosenfield

John Sommers
Overseas Development Council

Emmanuel Suter
American Association of Medical Colleges

Thomas Weller
Harvard School of Public Health

Robert Wincek
General Motors

Beverly Winnicoff
Rockefeller Foundation

Carl Yordy
National Academy of Sciences

Paul Zukin
Kaiser Foundation, International

Government Participants

Action

Ivan Alio
Dorothy Mann
Franz Rosa

Agency for International Development

John Alden
Paul Bell
Charles Briggs
Rose Britanek
Alfred Davidson
Donald Ferguson

Judith Gilmore
Barbara Herz
Christopher Holmes
Lee Howard
James Levinson
Robert McClusky
Clifford Pease
Jean Pease
Reimert Ravenholt
Barbara Sandoval
Joe Speidel
James F. Thomson
John Ulinski

Department of Agriculture

Rosalyn Lazarus
Lyle P. Schertz

Department of Commerce

Walter Fausel
Frances Hall
Richard Johnson
Randall Upton

Department of Defense

Captain Charles E. Brodine
Lt. Col. Bruce Chase
Captain Peter A. Flynn
Colonel Robert Joy
Colonel James Kennon
Colonel Garrison Rapmund
J. R. Schmidt

Department of Health, Education, and Welfare

William H. Batchelor
Robert de Caires
S. Paul Ehrlich
Kenneth R. Farr
William R. Gemma
John Hutchings
John Jennings
John Kelso
James C. King
Richard M. Krause
Norman Kretchmer
Milo D. Leavitt, Jr.
Betty Lockett
Edward Martin
Howard Minners
Franklin Neva
Ladene H. Newton
Lawrence Pratt
Joseph G. Simanis
Lee W. Smith
Elinor Stanford
Darryl W. Stephens
Melville Taff
George P. Tolbert
Richard B. Uhrich
Henrietta Villascusa
Stephen M. Weiss

Department of State

Randy Beers
Jack Blanchard
Ambassador Marshall Green
William Lowrance
Robert Simmons
William Walsh

Department of Treasury

Arnold Nachmanoff
David Klingensmith

Library of Congress

Franklin P. Huddle

National Aeronautics and Space Administration

Charles Barnes
D. L. Winters

White House International Health Assessment Staff

Gerald Fill, Study Director

Working Group Chairpersons

John Daly	Strategy Development
Robert Emrey	Commerce & Finance
Donald Hopkins, M.D.	Research & Development
L. F. "Krys" Krystynak	Health Manpower
Gabriel Rudney	Private Sector

Investigative & Research Staff

James Banta, M.D.
Sarah Becker
Thomas Brown
Thomas Burke
John Campbell
Lincoln Chen
Karen Cox
John C. Cutler, M.D.
Diane Hedgecock
Mark Laskin
Douglas Lowe
Joy Riggs-Perla
Donald Scheer
Mary Beth Taliaferro

Administrative & Technical Support Staff

Elaine Frost	Editor
Vivian Beyda, Toula Bockting, David Damrosch, Stuart Diamond, Patricia Dimond, Paula Kaufmann, Gertrude Kelly	Editorial Assistants
Marian Craig	Executive Secretary to Study Director
Betsy Krystynak, Barbara Langhoff	Secretaries
Sparkman & Bartholomew Associates, Inc.	Graphic Arts

Part I

New Directions in International Health Cooperation

Executive Summary

Introduction: Guaranteeing the Right to Health

The right to health and our Nation's moral commitment to help guarantee that right form an integral part of the foreign policy of the Carter Administration. A national health policy for the United States will only be fully effective if it is coupled with a strong U.S. international health policy. At present, no such policy can be found throughout the government. No clearcut goals are set; there is no carefully considered allocation of funds; and little coordination between public and private individual agency programs exists.

Despite substantial, well-intentioned efforts and investments in international health, lack of adequate coordination and integrated policies is reflected in uneven success in alleviating persistent disease and disability in developing nations. Fifty percent of all children die before age 5 in some African countries, most of preventable diseases. Despite significant efforts to alleviate world hunger, 300 million children annually continue to suffer malnutrition and its debilitating, long-term effects.

Health programs in the United States also require coordinated initiatives. No U.S. policy in international health will be credible to other countries, or acceptable to U.S. citizens, if it is not fully integrated with a strategy to improve health programs in the United States. Glaring disparities between the health condition of minorities in the United States and the general population confront us. The Nation's capital, even with a substantial physician population, has one of the highest infant mortality rates in the country. Sri Lanka reportedly has a higher life expectancy than does the District of Columbia.

In view of our own shortcomings with respect to the health of our Nation's people, of U.S. awareness of global interdependence, and the necessity of international partnerships directed toward meeting basic human needs, this study was prepared at the request of the President of the United States. The members of our task force focused on inventorying resources currently being expended by the Federal Government in the area of international health.* We considered ways in which these resources could better be utilized and coordinated.

Specifically, we asked ourselves how governmental and multilateral development strategies could be reoriented to affect health, and how the welfare image of international health assistance could be dispelled and its economic development aspects emphasized and reinforced. We also examined strategies to involve the unique capacities of private individuals and organizations for timely, sensitive, flexible, and innovative action at the grassroots level.

---

*Safe water, nutritious food, moderate family size, and primary and preventive health services constitute the basic means to attain good health. We shall use the term "international health" throughout this report to generally refer to activities related to the provision of these means whenever more than one country is involved or if a country is engaged in health activity primarily for the benefit of people in another country.

Finally, we analyzed how the full potential of diverse government programs and resources in biomedicine, food, population, trade, and related policy areas might be brought to bear on improving the health status of U.S. citizens and foreign nationals, and subsequently we made recommendations to foster this goal.

Our findings indicate that although the activities of 22 separate U.S. Government agencies are involved in international health, these efforts are only marginally related to one another. Past U.S. international health policy has been based on the belief that bilateral economic assistance would "trickle down" to improve the health of all. This strategy failed in part because economic growth never reached the poorest individuals, and in part because health assistance focused on high-technology curative health care in hospitals with little or no impact on rural populations. Any new initiatives in international health will be difficult to implement. Members of private, nonprofit, church-related, business, and voluntary organizations are skeptical of collaboration with government, citing constraints and cumbersome procedures, lack of long-term government commitment, and the insensitive attitude of many government agencies toward private agency methods of operation. Within the government, little or no role is given international health in the formulation and execution of U.S. foreign policy. The United States, we recognize, cannot dramatically alter global health conditions by itself. An ethic of international cooperation among all nations is required, based on humanitarian, not ideological principles.

We therefore recommend that international health be elevated to an active and positive concern of all U.S. Government agencies, and particularly, that in the State Department, international health should play a strong role in the basic human needs strategy of U.S. foreign policy.

We hope that this study will lead to a unified U.S. international health policy, eliminating the notion that international health is incidental to other Federal agency programs, and will strengthen the accountability for international health policies in the Executive Branch and the Congress.

Chapter 1: Foundations for U.S. International Health Policy

The United States has long been committed to the improvement of world health. As a nation we recognize and reaffirm the fundamental human right of people everywhere to enjoy the highest possible health standards.

In cooperation with other nations, the United States must adopt an international health policy and strategy to serve the health needs of developed and developing countries. The majority of Americans favor health assistance to other nations, particularly assistance that is immediate, direct, and tangible. They view health aid as a proper form of foreign aid, and they are willing to accept increased budget allocations for environmental and medical services.

Health in the Present

Despite great scientific and technological strides in health, poor health is still rampant in much of the world, aggravated by problems of high population growth and a lack of adequate nutrition, clean water, and the most basic health services.

World health patterns vary greatly, and the differences are most apparent between developed and developing countries. While developed countries have populations consisting almost equally of young and old people, more than 50 percent of the population of some developing nations is under age 15. The United States and other developed countries share similar demographic patterns of health and health services. With developing countries, the United States continues to express humanitarian concern for their particular health problems, especially problems affecting children who constitute such a large proportion of the population in many of those countries.

Health in the Future

We anticipate that the health situation of the developed world over the next few decades will be characterized by improved life expectancy and by a pattern of health services increasingly oriented to health problems of the mature and elderly. At the same time, health resources and programs in the developing world will have to display inherent flexibility and responsiveness to unique patterns of disease. Improvements in nutrition and reductions in communicable disease effected by development will be most visible in the health of children.

Although high aggregate growth may occur in developing nations, that growth may be accompanied by increasing levels of poverty and ill health unless income is more equitably distributed. These countries will also face the prospect of large-scale malnutrition and accompanying disease and disability if their food situation does not radically improve. The U.S. Agency for International Development (AID) predicts that by the year 2000, food production in developing countries will be 216 million metric tons less than projected demands.

Broadening Our Involvement in Health

In the United States, administrative or legislative responsibilities for international health currently reside in 22 Federal agencies. These agencies spend $528 million annually on international health and related activities.* Private-sector involvement, including exports of medical supplies, is even more extensive. In 1975, sales abroad by U.S. pharmaceutical firms totaled $4.7 billion; in the same year, these firms spent $144 million on research in foreign countries.

The private sector in the United States – churches, voluntary agencies, foundations, and universities – is also extensively involved in international health. Church-supported medical and nursing schools, for example, have contributed significantly to manpower development in various nations. Foundations have developed and supported U.S. research efforts in tropical diseases and family planning, provided training facilities for health professionals, and fostered regional interdependence. Private voluntary organizations (PVOs) have been perhaps the most effective institutions in promoting people-to-people approaches to international cooperation for the improvement of health.

Most U.S. Government activity in international health has taken the form of development assistance or research and scientific exchange. However, greater opportunities can be made available for international health initiatives if: a) international health is more closely related to other areas of U.S. concern, namely, international relations, international commerce and trade, and U.S. domestic health policy; and b) the U.S. Government fosters a broader role for the private sector in international health activities. Increased awareness of these possibilities for international health will lead to an enlarged base from which we can more effectively achieve humanitarian goals.

During the next decade, the United States should continue to collaborate with the developed world on shared health interests. It should also expand its concern for the health of the developing world and increasingly cooperate with the rest of the world to close the gap between existing and attainable health status. Real hope exists that by strengthening our efforts for basic human needs, health status among the world's poor can radically improve in this century. However, if we ignore the present realities of world economic and health status, there remains the possibility of catastrophic global problems.

---

*See Appendixes, Part II, for documentation. This is the first comprehensive assessment governmentwide in this area.

Chapter 2: International Relations and Health Diplomacy

Alleviation of unnecessary suffering and ill health in any country is as important a part of guaranteeing human rights as the protection of civil and political rights. This Administration has recognized that health is one of the most basic human needs, and must therefore occupy a position of greater prominence in U.S. relations with other countries than it has previously had.

Initiatives dealing with health should form a significant aspect of overall foreign policy. Because these initiatives are tied to universal human concerns, they offer a means of communication sometimes beyond that provided through formal diplomatic channels.

U.S. policy should stress development assistance for meeting basic human needs. Priority should be given to those countries with the greatest needs and the strongest desire to alleviate them. The United States should encourage other countries to purchase needed technology, equipment, and supplies, and to participate fully with the United States in collaborative efforts.

We define medical diplomacy as collaboration between countries on health matters to improve relations with one another. The health benefits of this collaboration may accrue to the interacting countries or to some other countries. Medical diplomacy, both at the governmental level and through private contacts, can produce humanitarian benefits along with improved relations. For example, the health sector should play a leading role in the growing exchange between East and West.

Health diplomacy has many other areas of application, all indicating aspects of America's interdependency with the rest of the world.

Global Health Problems. These include environmental pollution, depletion of the ozone layer, rapid global population growth, and inadequate production and/or distribution of food supplies. To ameliorate these problems, coordinated long-term international collaboration is required. Our commitment to solving these problems, therefore, must be an integral part of our foreign policy.

Foreign Policy. America's traditional medical diplomacy has been carried out through bilateral aid programs and membership in international organizations, and by interested private organizations. In relationships with other nations, our Government must represent the health interests of American citizens and industry abroad and apply criteria of health and other human rights in the evaluation and establishment of relations.

In general, we have rejected the use of health sanctions in bilateral diplomacy. The United States should emphasize cooperation with countries showing serious concern for basic health needs. Medical diplomacy should prove particularly useful in instances where the United States does not have formal relations with countries. Initial steps in trying to establish health relations might include informal discussions at international meetings, free provision of medical literature, and cooperative efforts in communicable disease control.

Multilateral diplomacy includes representing the United States in multilateral health-related organizations. U.S. participation in the World Health Organization (WHO) is a major aspect of our international health activity. It consists of 25 percent of the regular WHO budget and voluntary contributions which come from the United States. Through participation in the World Health Assembly (WHA), the United States has had a notable influence on WHO policies. Through the Pan American Health Organization (PAHO), the United States and Cuba have continued to cooperate in health efforts despite broken diplomatic ties.

The Department of State, the Department of Defense (DOD), the National Aeronautics and Space Administration (NASA), and other agencies all have programs in international health. The Department of State has been criticized by GAO and others for not having a health policy with regard to multilateral organizations, and for ineffectively managing and planning for U.S. delegations and budgetary contributions to health agencies. For instance, U.S. representation in WHO involves balancing an entire range of foreign policy issues: domestic health, scientific, and economic and trade goals in international health, but without benefit of a coherent overall policy. On the other hand, U.S. support of the United Nations has been seen as inappropriately consistent. These and other related international agencies have values differing from our interests. They provide programs of varying efficiency and effectiveness, and should be treated independently in terms of budgetary and policy decisions.

With respect to U.S. participation in international financial institution (IFI) activities, these programs are currently evaluated on the basis of information gathered by banks and submitted to nonhealth professionals for evaluation. We find this lack of technical review by the U.S. Government to be inappropriate.

We are also concerned with establishing a balance of trade by expanding U.S. exports in an increasingly competitive world market. The United States, we propose, should take advantage of its global leadership in health care services and commodities and expand international trade in pharmaceuticals and supplies. We should also seek other ways to take advantage of our domestic strength in health.

Foreign affairs will deal increasingly with relationships between people or between nongovernmental institutions such as industries and universities. Private diplomacy will also be a major function of U.S. volunteers and employees of nonprofit agencies working abroad. The Peace Corps, PVOs, and foundations have a major role in demonstrating American concern and commitment by helping people abroad.

Constraints to U.S. Involvement in International Health

In the past, America's involvement in world health has not accomplished as much as it promised. Constraints on the implementation of international health policies arise in three areas: problems with program administration, lack of congressional support for an international policy, and limitations or lack of will by host country governments.

Most importantly, there is no adequate interagency mechanism to initiate and coordinate the full range of U.S. health programs. The Department of State, in theory, has responsibility for international health but does not, at present, serve as an authoritative focal point because health responsibility is diffused throughout the Department. The State Department is understaffed in health professionals, with personnel being drawn from the ranks of career foreign service officers who are selected for political, geographic, and economic expertise. At present the State Department cannot successfully carry out its international health duties. In a broader context this has applicability to its poor scientific capability.

Limited or no budgets for international health activity are severe constraints. As a result of the historical dissatisfaction of Congress with accomplishments in foreign aid, the Foreign Assistance Act is subject to close surveillance. Congress excludes AID from certain countries for political reasons, and often limits appropriations to 1 year, requiring frequent and time-consuming reporting. At present, it is difficult for AID and other international health organizations to defend their budgets before Congress. New organizational, management, and budgetary procedures are required if U.S. international health policy is to be effective.

There are also foreign constraints on program implementation. Many developing countries lack leadership commitment to basic human needs. Leaders of such countries must be made to realize the explosive political as well as social effects of worsening poverty and health. Too often, programs have been designed to satisfy these leaders' ideas of health care – hospital intensive and curative-oriented – so that health care at the local level and in rural areas is often inadequate.

Recommendations

We believe that implementation of the following recommendations will improve the effectiveness of American health diplomacy and the level of health care available to the world's poor.

- **An explicit policy should be formulated, detailing the nature of the relationship between international health and international relations.** It must be initiated, be understood, and be implemented by all concerned, not only those responsible for international health, but those responsible for international relations as well. That policy must stress U.S. concern for basic health needs at the highest levels of government policy making and complement the President's human rights policy, demonstrating real and effective concern for the health of people everywhere;

- **An interagency coordinating mechanism should be established at the policy level.** It would provide the means by which the several U.S. Government agencies could relate and strengthen their separate purposes and potential contributions to the benefit of the overall goals of a U.S. international health policy. The policy-level mechanism would be responsible for establishing, managing, and implementing U.S. international health policy, and for reporting progress through an annual report to the President;

- **An organizational unit should be created within the Department of State to act as a focal point for international health, nutrition, and population.** This unit would clarify and strengthen appropriate programs, and would support and promote international health activities, and administer a support staff for the policy coordinating mechanism;

- **A cadre of international health attachés should be placed in non-AID eligible developed and developing countries** to work primarily on identifying needs or opportunities for U.S. initiatives in international health and on promoting these initiatives in the United States and among host country governments. The program of this global health cadre should be administered by the international health unit in the State Department;

- **An annual report to the President and Congress should be prepared which describes the international health activities of all U.S. agencies.** This will enable both branches of the Federal Government to improve accountability and responsiveness in this area.

- **A special governmentwide budget and management analysis should be prepared to improve understanding concerning the magnitude and importance of international health, identify duplication and waste, and increase accountability.**

Chapter 3: Health of U.S. Citizens

The United States should guarantee protection of the health of its citizens at home and abroad. This does not preclude U.S. concern about the health of people everywhere and U.S. willingness to take practical, effective steps to improve health, especially that of the world's poor. Any international health policy we may propose can only be credible if it is integrated with a strategy to improve health care within the United States. International health activities can contribute significantly to the health of U.S. citizens by enhancing the equity, efficacy, and efficiency of U.S. health care and by improving U.S. scientific knowledge.

A Comparative View of U.S. Health

Eighteen countries now have a higher male life expectancy than the United States, and six have a higher female life expectancy. Fourteen nations have a lower infant mortality rate. Mortality rates for poor and minority populations in the United States are markedly worse than those for the general U.S. population. These conditions persist (despite great advances in reducing infant mortality over the past 25 years) even though health service expenditures in the United States have risen sharply. In 1975, 8.3 percent of the gross national product (GNP) was spent on health; by 1980 health expenditures may reach 10 percent of GNP. The health care industry is currently the third largest in the United States.

Yet there is no obvious relationship between expenditures and health indices in the United States. Exploring the diversity of experience among countries with similarly great interests and expenditures in health should prove beneficial to the United States in analyzing persistently unfavorable health trends among the U.S. population.

The health budgets of the 14 Federal agencies having health programs totaled $51,432 million. International activities represent a relatively small proportion of the Federal health programs oriented toward domestic needs, and such agency involvement is quite complicated. Because there are no explicit guidelines for implementing knowledge gained from international health activities, domestic health programs and policies have suffered. International and national health programs therefore should be coordinated more efficiently to ensure their mutual advantage.

To be truly effective in improving the health of U.S. citizens, a comprehensive health program of the U.S. Government must include a well-organized plan for health activities. Consequently, attention must be devoted to the international aspects of key health policy issues: access to health care, quality and efficiency of that care, and strengthening of preventive services.

Our concern for world health will be more credible to U.S. citizens and other countries if we follow a complementary approach which seeks to improve health within the United States as well as abroad.

Constraints

Existing legislation does not allow a Federal agency such as the Department of Defense, which operates a network of health care facilities outside the United States, to provide care to noneligible individuals, even though less than 40 percent of bed capacity is being used.

Moreover, the diversity and independence of institutions involved in international health constrain their ability to achieve objectives and seriously challenge efforts to encourage coordination of their activities.

Within some Federal agencies, too, international health activities undertaken for domestic health purposes are often episodic, ineffective, and inappropriate. The lack of explicit policies for international health activities in support of domestic health is therefore detrimental.

Another great disadvantage is that no information system exists to which a government project official can turn for data about international health activities.

Recommendations

We can identify three key areas that will lead to improved health domestically and internationally.

- **Communication of medical and health information should be increased among nations.** Not only biomedical information needs to be shared, but also information about financing, cost containment, and delivery of health services (especially to rural areas). There should also be increased face-to-face contact among health personnel, especially through activities of the John E. Fogarty International Center of the National Institutes of Health (NIH). The Center should, for example, receive support for a global health conference to be held annually;

- **U.S. citizens travelling abroad should have freer access to preventive and curative health services, as should foreign nationals residing in this country.** A task force of personnel from DOD, NIH, and the State Department should be created to evaluate expanded and alternative uses for existing DOD health facilities; these could be used in part as international centers for clinical exchange and research;

- **More should be done to combat health hazards which cross our borders**; epidemiological surveillance should be improved, and cooperative international efforts undertaken in this area. Health services should be reoriented domestically to stress preventive medicine.

Chapter 4: Private-Sector Involvement

The private sector performs a significant role in international health, with a diversity of purposes, operational styles, and constituencies. Private-sector organizations include nonprofit institutions (voluntary organizations, labor organizations, universities, and foundations) and profit-making corporations. Although these groups differ markedly in resources and programs, they share an ability to bring innovative ideas and techniques to the field of international health. This pluralism allows great flexibility in meeting acute health needs, yet often precludes long-term project financing. The Federal Government should, where appropriate, facilitate increased resources for the highly effective grassroots approaches of nonprofit organizations, as well as encourage corporate activities that enhance general health conditions in developing nations.

Nonprofit Organizations

Private Voluntary Organizations. PVOs can be classified functionally within two broad categories: *agency organizations* which provide education, preventive and curative services, and emergency relief, and *professional associations* which upgrade knowledge, skills, standards, and working conditions of health professionals and those professionals in health-related fields. Approximately 300 of these organizations and associations are substantively active in developing country health programs, providing direct health services; technical assistance; grants to aid governments or communities in implementing projects; training for developing country nationals; food and equipment; and support for research and conferences on health-related subjects.

The success of these activities can be attributed to several inherent PVO assets: the capacity to move quickly and innovatively into new areas of need, the objectivity to appraise situations without bowing to political influence, the freedom to engage in controversial activities, and the ability to experiment in an unfettered manner. However, because of declines in private contributions and government support, PVOs are increasingly less able to function effectively or to change the focus of their crisis-oriented activities to meet developmental objectives. Furthermore, PVOs are constrained by restrictive host country policies and inadequate PVO-government relationships. For example, AID contracts and grants ($83 million in FY 1976) can be used to develop existing PVO organizational structure, but *not* host-country PVO infrastructure. Inflexible restrictions on where (by country) and on what (by program area) government funds can be spent impose additional difficulties and curtail autonomy of action. PVOs are often reluctant to accept U.S. funding because of the political implications of foreign aid.

PVOs face rigid government requirements which slow or hinder program formation. The work of PVOs can be facilitated by more flexible administrative requirements, and reduced Federal bureaucratic complexity, as well as more understandable government regulations.

Labor Organizations. These include labor unions such as the AFL-CIO, and affiliated foreign groups; the Asian-American Free Labor Institute (AAFLI); the African-American Labor Center; and in Latin America, the American Institute for Free Labor Development. These international organizations have committed over $157 million to health during the past 10 years.

Labor, with its benefits of self-reliance (both in planning and financing), is a major resource. Labor concentrates on high-impact projects in health, giving special consideration to the needs of area trade union workers and their families. The AFL-CIO has minimal direct involvement in projects after they have been selected; contributions conform to the requests of local unions and consist of medical and dental equipment, drugs, mobile clinics, medical supplies, and funds for construction or renovation of health facilities. Labor organizations provide educational seminars for trade unionists and their families on topics including basic health practices, family planning, maternal and child health care, and nutrition. They also have conducted continental and international seminars to disseminate information gained from the experiences of various health program efforts.

International health programs receive only limited funding from U.S. unions because they are not central to union objectives. Furthermore, since the health activities of organized labor are limited to areas where unions already exist, they tend to take place in urban rather than in rural areas. Although U.S. labor union involvement in international health may be relatively small, labor's activities do display features which could improve the effectiveness of more prominent contributors. For example, by relying on self-help policies, unions have avoided the necessity of prolonging their involvement in host-country health projects. Moreover, much of organized labor's success is attributable to use of a planning mechanism that accords priority to the wishes of the lowest level of organized workers. Local trade unions themselves initiate and implement the development of health programs.

Universities. The academic community has a continuing interest in international social and economic development. The role of U.S. universities in international health includes: education of U.S. health professionals and foreign students seeking careers in international health-related fields; provision of faculty services to foreign universities; and formation of consortia for cooperative efforts with specific or broad objectives. The United States makes contracts with foreign schools, often through AID. U.S. universities assist in setting academic and research goals, transmitting administrative, curricular, and teaching methods, and training personnel. NIH grants to U.S. medical schools for cooperative work with foreign institutions provide support for the establishment of international centers for medical and research training.

There is growing conviction that medical and other health-related training for foreign students should be given close to, or in, the home country, since methods learned by foreign medical students at U.S. schools may not be easily adaptable to the problems and environment of their home countries. Another problem is the concern that many institutions share about the extent of supervision required to educate U.S. health professionals either here or abroad and the difficulty in evaluating their gains in skill and knowledge. Yet another problem is the misgiving among U.S. faculty members that overseas work will occur at the cost of professional growth, tenure, or financial security; still, many of them do act as visiting professors abroad.

With respect to funding, academics complain that government-supported international health research is difficult to obtain; available monies are allocated to only a few universities; project emphasis is too transitory (this year nutrition; the next, population); and the provisions of the Foreign Assistance Act specifically exclude universities. Short time limits on contract completion preclude program efficacy; academics argue for fund commitments of at least 5 years.

Other issues warrant attention. For example, medical schools generally establish consortia of limited duration, to meet particular health project objectives. Currently, few such consortia exist. Some of them, like the now dormant health arm of the Midwestern Universities Consortium for International Activities (MUCIA), operate through a formal corporate structure. Others, like Case Western's schistosomiasis project, function on an ad-hoc basis.

Often U.S. Government grants to foreign universities have drawbacks. AID grants may reflect goals not relevant to host country needs; NIH grants are research-oriented and therefore may fail to address local health needs directly.

Foundations. The pioneering role of philanthropies in international health is undisputed. New priorities are being established by foundations as more public funds are channeled into international health and as private foundations recognize that good health can be attained only through the resolution of complex factors and that delivery of health services requires local institutional structures for sustained, efficacious operation. Foundations, in contrast to governments and multilateral international organizations, can act quickly and flexibly.

According to the latest compendium of international philanthropy compiled by the Foundation Center (an organization which oversees all foundations), $71 million (or 7 percent) of total foundation expenditures in 1976 were directed to international purposes. Of these funds, less than $20 million went to health and welfare programs. Furthermore, seven U.S. foundations (of 22,000) today account for 88 percent of all grant making in the international arena. Only the Ford and Rockefeller Foundations have had international programs with a focus beyond one geographic area or issue. The Ford Foundation directed its resources to population and agriculture, while the resources of the Rockefeller Foundation are evenly divided between health and population. Kellogg Foundation efforts center on health care in Latin America; and the funds of the Edna McConnell Clark Foundation are reserved for research in one disease, schistosomiasis. The Population Council – with strong support from the Ford, Rockefeller, and Scaife funds – has been the intellectual leader in the population field during the last 20 years.

Constraints on foundation activities which are amenable to change by government initiative include: the need for institutional leadership in specific problem areas (at present, only population is not fragmented); the high costs which discourage foundations with limited resources from getting individually involved in international health; tax reform laws which have a chilling effect on international health work; and international liability laws which are poorly understood.

Profit-Making Organizations

U.S. corporations engage in health-related activities such as construction, manufacturing, and marketing of health facilities, supplies, and services; conducting research to improve technology and products; providing health facilities, supplies, and services to employees and their dependents in developing countries; and participating in national or community health programs of the host country.

The corporation (as a source of capital, technology, managerial skills, and employment) raises wage levels and living standards and provides a tax base upon which the host country can build public programs such as those affecting health.

The role of the U.S. corporation in dealing with international health and social problems is being questioned, particularly with respect to the profit-making motive of corporate policy decisions. Corporations are increasingly aware of the need to reduce or prevent social, economic, or environmental difficulties arising from their activities in a climate of increased overseas nationalism and threat of expropriation.

Developing countries encouraging corporate operations view the corporation's role not only as profit making but as an investment in their economic and social development. However, effective cooperation between corporations and host countries is hindered where there is latent or obvious hostility toward the United States, resulting from the view of corporate operations as manifestations of economic imperialism and the most unpopular aspects of U.S. foreign policy. Recent growing nationalism is causing a more active collaboration among governments, corporations, and private-sector organizations that are providing health care in developing countries.

Recommendations

We believe the following measures would significantly contribute to private-sector involvement in international health:

- **Government support (direct or indirect) should be increased for effective grassroots PVO programs;**

- **Government funding for such programs should be awarded with fewer restrictions and cumbersome procedures;**

- **Labor unions should be encouraged to expand their involvement in international health, and their successes in self-help should be incorporated into other programs;**

- **Universities should receive more funding, which should be directed to a wider number of universities and should be allocated for substantial periods;**

- **Tax reform should be structured so as to avoid having a chilling effect on foundation activity in international health;**

- **Government incentives should be adopted to encourage corporations to expand their activity in international health;**

- **The U.S. Government should establish a National Endowment for International Health (including nutrition and family planning) to facilitate PVO activity and coordination.** It would stimulate financial support and would provide technical and planning assistance for PVOs. It would be independent from any agency, and would be directly responsible to a private governing council of its own and to the President.

Chapter 5: Financial and Commercial Aspects of International Health

U.S. health industries can play a greater role in international commerce and health. Health products and services – areas in which the United States has demonstrated a comparative trade advantage – appear to be underrepresented among U.S. exports. Consequently, our commercial health involvement should be guided by the following principles:

- U.S. resources should be fully marshalled to implement human rights policies abroad and especially to provide low-income countries with health assistance to the population most in need;
- The American health industry should be encouraged to play a full and effective role in balancing overall international resource flows and implementing resources policy;
- The effects of domestic health policy decisions on the international flow of resources should be promptly analyzed and considered as decisions are made;
- The health effects of international financial and commercial policies should be promptly analyzed and responsibly managed.

Our investigation of the nature of the financial and commercial aspects of U.S. involvement in international health focused mainly on three areas:

- Availability of financial resources for health improvement in developing countries;
- Availability of health-related products and services through direct foreign investment or for import and export in international markets;
- Assessment and implications of the health side-effects of products and services imported or exported by the United States.

U.S. Government Financial Responsibility

Current government responsibility for financial and commercial aspects of international health, in terms of coordination, administration, regulation, and promotion of international commercial health activities, is distributed among five Cabinet-level departments and offices.

The Treasury Department affects international health as a formulator of financial, tax, and fiscal policies. But international health responsibilities are not assigned to any particular department or agency, and economic and financial mechanisms currently used to manage domestic and international monetary systems tend to ignore sector-specific and product-specific interactions. The State Department provides economic policy direction to international commerce. International health concerns at the Department of Commerce focus on the direction and promotion of trade and commercial relations in health-associated products and services. The Agriculture Department oversees a variety of health and health-related services as part of its responsibilities for marketing and nutrition. The Department of Health, Education, and Welfare (HEW), primarily through the Food and Drug Administration (FDA), executes a variety of regulatory and research functions in international health. FDA activities have a significant bearing on standards of health and safety. FDA sets standards for imported food, and has programs to assist foreign governments in establishing systems for quality control of imports and exports. Finally, the Office of the Special Trade Representative negotiates and administers all trade agreements entered into by the United States.

The U.S. Government should explore new and better ways to finance and channel health assistance to developing countries. Policy related to commercial and financial aspects of international health is subdivided among various agencies to the point where conflicts are bound to occur. The capacity of Federal agencies to respond to new commercial and financial health initiatives is weak; both personnel to address technical issues from a financial standpoint and adequate data for analyses are lacking.

U.S. trade and development assistance should recognize that the developing countries desire broad changes in development assistance, involving revised terms of trade, increased concessionary assistance, and more industrial production in their countries. The selection of appropriate financing channels should involve a commitment on the part of other countries to devote more attention to improved health care. The message is clear: We must collaborate with recipient countries, showing respect for their concerns and interests.

Different financing mechanisms have, of course, differing impacts on the balance of payments and U.S. international trade. They imply various commitments by the U.S. Government for long-term financing, as well as containing several possibilities for the type, quality, and effectiveness of U.S. control over assistance.

Bilateral and Multilateral Financial Assistance for International Health

There are several U.S. Government channels used to finance health activities internationally. Bilateral assistance to developing countries in the health field is tied into the overall development assistance programs of each agency. Despite criticism of AID's management, it remains first and foremost among bilateral donors lending specifically for primary health care. In addition, since AID lending is tied to the purchase of U.S. services and commodities, the U.S. balance of payments is aided as markets for our commercial goods and services are created in developing countries.

The two major channels for multilateral health assistance are the U.N. agencies and the IFIs. The U.N. agencies are not recommended as major channels for financial assistance, but should continue to be funded as technical assistance and coordinating agencies. Development assistance channeled through these agencies is not tied to purchase of U.S. goods and services. It is prudent to select those channels of foreign assistance which do not have a negative input on the U.S. balance of payments.

An increasing number of IFI projects contain health components. In these cases health has been interpreted as an integral part or by-product of a more general development strategy. We find that:

- **There have not been enough internal assessments of health activities by IFIs, nor have enough health professionals been seriously involved in program evaluation;**
- **Infrastructure investments have significant bearing on the improvement of the environment and health, and should be more completely evaluated;**
- **The United States should urge the IFIs to reexamine their health strategies and should support IFI policies that direct a significant portion of IFI lending to basic human needs activities, especially to health services development.**

Nonprofit Organizations' Financial Responsibility for International Health

Because of their innovativeness, their linkages with local citizens, their personal approaches, their past experiences, and their commitment to the development process, nongovernmental, nonprofit groups have a unique potential as resources for health assistance to developing countries. These organizations depend on host country financing; philanthropic donations of money, goods, and services; and in some cases, on U.S. Government support. Private contributions for public purposes in the United States have not kept pace with the economy or even with inflation. **Therefore, we perceive the need for government to stimulate private financing and/or to provide direct support if the nonprofit institutional sector is to grow within the overall health assistance program.**

There is need for a mixed strategy for financing U.S. health assistance to developing countries. Commercial, private, nonprofit, bilateral, and multilateral channels should all be explored and used. The immediate rate of increase should be in AID-funded health assistance and in the commercial sector.

Commercial Involvement

Commercial activities constitute the majority of all U.S. international health activities. They are particularly applicable to so-called "graduate" countries – which have lost their eligibility for bilateral or multilateral concessionary assistance, and to countries combining high average per-capita income and inadequate health services. Foreign financing can facilitate the transfer of health technology and sharing of organizational and managerial abilities through joint U.S. and host country investment and through host country purchase of goods and services. A strengthened partnership between government and the private sector in the distribution of services, know-how, and equipment worldwide is desirable because it helps to promote the most efficient use of all available health resources, both in terms of costs and of numbers of individuals and societies aided.

There are two major reasons for emphasizing such an approach. First, by virtue of the size of the U.S. market and U.S. industry's massive investments in research and development, as well as high U.S. industrial productivity, the U.S. private health industry has developed an advantage in the production of health services and products second to none in the world. The benefits, in terms of the availability of the newest technologies and costs of equipment and services, are available for export throughout the world. Second, no matter how many resources the United States commits to improving international health, U.S. Government efforts alone will not be enough to accomplish all our goals. Our government therefore must ration its support, concentrating its efforts in the poorest, least developed areas. We will have to rely on the resources of the private sector to aid the more developed of the less developed societies.

Until now, the goal of improving international health has not figured in U.S. international economic policy; however, if we are to utilize the private sector as a channel for our international health policy objectives, then our international economic policy must reflect them as well.

Health-related manufacturing activity contributes favorably to the U.S. balance of trade (a positive health-sector trade balance of $1.44 billion in 1976) and accounts for significant aspects of technology transfer by U.S. industry. Eight percent of the total overseas sales of U.S.-based pharmaceutical firms are manufactured abroad, usually to avoid high protective tariffs and gain access to otherwise restricted markets. This establishment of overseas manufacturing affiliates encourages the export of U.S.-produced ingredients and equipment, and benefits the host countries.

Government Stimuli to International Health Finance and Commerce

There are various methods by which the U.S. Government could stimulate more private-sector involvement in health overseas:

- **It could provide a major economic developmental service by giving timely and accurate market information on health-related products.** Industry people indicate a relative reluctance to enter fully into international commerce; they cite a lack of familiarity with foreign lands. Since the major health market of the near future will be in developed countries, U.S. industry should be encouraged to expand health trade with Communist countries and members of the Organization of Petroleum Exporting Countries (OPEC);

- Other government programs can generate foreign markets for American products. **Foreign assistance should continue to require purchase of U.S. goods and services when a recipient host country needs imports;**

- **Most trade financing mechanisms could be improved by adopting more flexible policies.** Numerous financial barriers constrain American private overseas investment in health care plans, products, and programs;

- **Health investments are excellent forms of development and should be strongly promoted by the Overseas Private Investment Corporation (OPIC).** OPIC is chartered to promote foreign investment by U.S. firms in developing countries. OPIC provides loan guarantees to private lenders, direct lending, and insurance to U.S. firms for investing in the health industry abroad; operates at no cost to the government; and provides an excellent vehicle for encouraging expanded trade;

- **The Export-Import Bank should significantly increase its efforts to provide incentives to health exports.** The Export-Import Bank also plays a major role in providing financial incentives to encourage commerce: FY 1976 expenditures were $36.7 million in loans, insurance, and guarantees for exporters of U.S. biomedical equipment, supplies, and health-facility construction materials.

The Need for Caution

Before rapidly increasing commercial involvement in health in developing countries, however, we need to exercise caution. There is a certain amount of domestic and overseas public controversy concerning the involvement of U.S. health-related industries in foreign countries. In some instances, the sheer size of U.S. health product trade and investment levels is perceived by foreign leaders as politically and economically threatening, subjecting their countries to a dependence on foreign sources of supply and limiting opportunities for local industrial expansion. In other situations, more subtle and complex problems arise from the way products are manufactured, transported, advertised, sold, and used in overseas settings.

Several issues crucial to the growth of markets in health-related industries overseas are currently being debated by foreign governments and the U.S. health industries. These governments often have strict price controls on drugs marketed by multinational companies; this practice allegedly prevents pharmaceutical manufacturers from developing drugs for the treatment of diseases common in developing countries. Patent systems are also a point of contention. Manufacturers argue that compulsory licensing would inhibit research. Consumer advocates maintain that such licensing is desirable in developing countries to decrease prices and increase dispersion of health-related goods. Controls of raw material supplies necessary for drug production may become more important.

Another issue concerns multinational companies and the location of their production sites in a country that deemphasizes the occupational health and safety of workers. Thus the United States may export dangerous jobs. Equity demands that international standards and work practices for occupational safety and health be established.

The health effects of economic activity, whether direct (by pollution of drinking water or the export of hazardous substances) or indirect (by propagation of disease vectors), must also be considered. The merits of avoiding certain extremes of industrial pollution as found in the United States should not be ignored, and measures should be taken to promote cooperative international standards in this area.

Principles for U.S. Encouragement of Commercial Development

All U.S. Government activity to stimulate international health commerce should be complemented by efforts to ensure that these activities appropriately serve the basic health needs of the recipient population. Product labeling and marketing, the appropriateness of certain levels of technology, and the health and environmental effects of international trade all require further investigation. Through its international health programs, the U.S. Government should support the use of appropriate health practices and require industries to adhere to self-regulating codes.

With respect to product safety, the U.S. Government should examine policies which impose domestic criteria for health product acceptability on foreign countries by prohibiting import of products which do not meet domestic standards. International licensing standards for drugs should be established. Finally, a major analytic program financed by the Federal Government should be developed to explore the health side-effects of economic activity in an international trade system.

Chapter 6: U.S. Research and International Health

"Health research," as we refer to it in this report, consists of basic and applied laboratory and socioeconomic studies, studies to discover or establish facts or principles, and pilot experiments to establish how some technique or knowledge could be used in practice. We examined health research conducted by both government and private-sector groups in the United States, as well as cooperative health research efforts between the United States and other countries.

We believe health research should emphasize certain basic elements:

- Health care needs common to countries which do not have the resources to meet their needs;
- Enhancement of the ability of developing countries to handle their own health and related research and financing problems;
- Maintenance of a balance between pure research and its applications;
- Transfer of existing knowledge;
- Representation of both U.S. and foreign-country views and perspectives.

U.S. Government International Health Research

Government agencies funded about $106 million in international health research in FY 1977, out of $3.3 billion on all health research. Of the $106 million, nearly $92 million supported research on problems pertaining to developing nations (chiefly population and tropical disease research). The United States supports most of the tropical disease research in developing countries by maintaining several laboratories abroad.

Legislative authority for research by AID, HEW, and DOD is permissive at best and not a positive stimulus. Some authorizations have departed from their original scope, thus bringing about the curtailment of research. Research may be supported through grants, contracts, fellowships, and intramural staffs, different mechanisms being favored by different agencies. Budgeting constraints operating on biomedical research in general have prevented funding of many high-quality research proposals that had won agency approval. In addition, mistaken assumptions about possible duplication of effort have led to more stringent budgets. Appropriation committees, for example, have recently cut funds for tropical disease research. Insufficient funds are also leading toward a manpower shortage in international health research.

Mechanisms for Priority Setting, Coordination, and Review of Research Efforts

Most Federal agencies establish their own priorities for research through intramural staffs and consultations with extramural experts in the given field. Congress may, at its discretion, mandate greater emphasis on a particular disease. Depending on the funding, varying agency factors influence the setting of priorities: DOD focuses only on problems posing threats to military servicemen; NIH concentrates on opportunities to increase knowledge in areas of pathogenesis, diagnosis, treatment, and prevention of disease. AID's research is more sensitive to political considerations and is designed to be an integral part of developmental assistance.

Aside from a Global Epidemiology Working Group, no formal mechanisms presently exist for coordinating research among government agencies, although there are informal channels of communication among researchers.

Cooperation With the World Health Organization

Given the inadequacy of U.S. agency efforts, the WHO special program for Research and Training in Tropical Diseases (TDR), and the Expanded Program on Immunization (EPI) provide unique opportunities for U.S. collaboration in international health. About $23.6 million was obligated in FY 1977 by U.S. agencies to research germane to the TDR program, and the U.S. Army conducts the largest antimalarial drug program in the world. Only two institutions in the world are currently able to grow and supply investigators with leprosy bacilli and both of these are in the United States. The TDR leprosy program depends on these laboratories. AID and Center for Disease Control (CDC) information gleaned from a 5-year experience with combined measles-smallpox vaccination in West Africa would be a valuable contribution to the global EPI program.

U.S. Pharmaceutical Industry Research

The U.S. pharmaceutical industry constitutes a major research resource for the development of drugs, vaccines, and pesticides used in developing countries. Private firms spent $144 million in 1975 for research in foreign countries on human use of pharmaceuticals; over $1 million was budgeted for research and development. Unfortunately, private industry investments in these areas, customarily covered by sales, cannot be recouped in developing nations and the current U.S. market for such items is small. Increased concern in the United States about FDA regulations for marketing of drugs tested abroad and company liability for defective vaccines have provided disincentives to testing and developing new products. Business cites such problems as unfavorable conditions for marketing and investment in developing countries, together with frequent underutilization of existing vaccines and drugs in those countries.

Health Care Delivery Services

Conceptual and operational problems of health services research are formidable, since developed country models are largely inappropriate to the cultural and economic conditions of low-income countries; extensive research and development efforts are required to meet their unique requirements.

Recommendations

We recommend the following actions with respect to health research:

- **The United States should adopt an overall administrative and program strategy for cooperation with other countries in international health research**, supporting both long-term basic research and applied research. This strategy should emphasize development and transfer of methods and technology that can be sustained in developing countries;

- **Programs should be coordinated between agencies**, though present methods of sharing effort are valuable. Specific legislative authority should be developed to upgrade the existing Fogarty International Center at NIH, making it a more visible focus as a center for the development of international health policy. Clear program priorities should be set, taking into account impact and potential for further research possibilities. Programs should focus on such areas as rural primary health care, health planning and management, the development of simplified epidemiological techniques to identify and alleviate malnutrition and its causes, development and use of vaccines, prevention and cure of blindness, improvement of water supplies and waste disposal, and birth control. Once established, these programs should be carefully monitored;

- **The United States should provide increased funds to train more researchers and should expand its foreign research programs and facilities, in cooperation with existing foreign programs;**

- **Legislation should be sought to make Federal agency authority more specific and positive, and to foster greater pharmaceutical industry involvement in international health research.**

Chapter 7: Development and Supporting Assistance

Foreign assistance in diverse forms has been a major aspect of U.S. foreign policy for decades. The Foreign Assistance Act of 1973 emphasized aiding the poor majority in developing countries by focusing on food and nutrition, population and health, and education and human resources development. The draft of the Foreign Assistance Act of 1978 suggests a developmental strategy emphasizing growth and coordination of "basic human needs" policy with U.S. human rights policy, including "biological needs." Improving health, like fostering more general development, requires simultaneous coordinated policies affecting many of the social and economic conditions of a nation. Health is both an objective of, and a contributory element to, development.

Basic health needs are defined as physical and psychological needs including: 1) reduction of disability and discomfort from mental and physical disease; 2) reduction of malnutrition and its adverse consequences; 3) care for the suffering; 4) modification of childbearing patterns according to the needs of the family and community and to promote the better health of women; and 5) protection from injury and disability resulting from accidents and disaster. As our perception of the interrelationship between health, nutrition, population, and development deepens, we must expand our developmental assistance programs to make them more effective.

Goals and Objectives of Health Assistance

Within the next decade, the cycle of poverty, underdevelopment, and poor health will not easily be broken. We believe, however, that if the low-income countries can sustain a major effort with continuing essential government commitment and increasing resources, and if donors cooperate, the following achievements in health may be possible within 10 years:

- Increase life expectancy by 5-10 years per decade for those countries with average life expectancy of less than 60 years;
- Reduce infant mortality by 5-10 deaths per 1000 live births per year for countries with infant mortality above 50 per 1000 live births;
- Decrease the death rate in children ages 1-4 by 1-3 deaths per 1000 children per year in countries with mortality above 6 deaths per 1000 children;
- Decrease the birth rate by 1 live birth per 1000 population per year for countries with crude birth rates over 25 per 1000 population.

Rapid improvements in health require concerted efforts on an international scale. The following specific service delivery targets are illustrative of those potentially attainable by countries which are willing to make the necessary commitment and which are interested in collaboration with donors:

- Extension of basic health services to at least 60 percent of the population by 1985;
- Expansion of programs for the control of major communicable diseases for which effective, affordable technology now exists (immunization for 80 percent of preschool children in each country);
- Availability of family planning services that are affordable and geographically accessible to everyone by 1990;
- Provision of household connections to water services to 80 percent of the urban population in each interested country by 1990;
- Quick, effective response to disasters and epidemics on national and international bases.

Goals for nutrition are difficult to set. Ideally, targets for adequate calorie and protein availability and consumption should be specified.

General Program Policies and Procedures

Wherever possible, efforts to aid low-income countries should be directed at making them self-sufficient to deal with their own health needs. Principles of health assistance should include development of indigenous capacity of the host country, selection of approaches appropriate to specific conditions of the location in which services are to be delivered, promotion of health services that are replicable and affordable when extended to the entire population, recommendation of "front-end loading" programs, selecting of programs rooted in villages and in the poorest urban neighborhoods, and concentration of activity to benefit the very poor. Many low-income countries have not achieved continuity in developmental programs. The United States can encourage continuity by developing programs with 5-10 year periods of support.

Current Programs and Health Assistance

Experience has indicated that the benefits of gains in development and health do not accrue automatically to the poor. A world consensus is developing that programs must be designed explicitly and demonstrably to help meet basic human needs of the poor majority in low-income countries. Although the United States has been a major contributor of foreign assistance, the last decade has witnessed a consistent reduction in the proportion of GNP devoted to foreign assistance. Recent policy statements by President Carter and Secretary of State Vance indicated that in the near future the United States would increase the proportion of GNP allocated to international assistance.

Promoting Action in All Areas of Developmental Assistance

Health Planning. Health and socioeconomic development are closely linked. All nations would gain from development policies that provide maximum benefit to health, and that not only satisfy health needs, but also contribute to development. **The United States should offer a health planning capacity to developing countries so that they may establish and implement such policies.**

Health Systems Development. Health-sector assistance must foster the institutionalizing of health service delivery systems in low-income countries, balancing the investments in different levels of services and skills according to the specific situation and values of the host country. This concept should not be oversimplified, nor should the critical importance of the relatively few highly skilled workers and high technology aspects be underestimated. **The United States should direct its agencies to collaborate with countries wishing to establish comprehensive health services delivery systems.** Areas for concentration include improving understanding of local needs and existing technology, increasing human and other health system resources, and strengthening organizational and managerial capacities.

Nutrition. Certain interventions bearing on malnutrition problems are an integral part of any health strategy. Highest-priority initiatives of this type are: 1) **identification and follow-up of children at risk; 2) interventions designed to reduce iron-deficiency anemia and vitamin A deficiency; and 3) emphasis on the role of women in improving family nutrition.**

We must also consider the nutrition of workers in terms of their contribution to socioeconomic development, but we should direct nutrition programs primarily to those countries in which populations are severely malnourished. **U.S. agencies such as AID and the Peace Corps should emphasize in their programs development of self-sufficiency as a means of preventing malnutrition.**

Family Planning. Population has become an increasingly important subject area within the overall foreign assistance program, in terms of both budget and impact. We recommend that this trend continue, but with increased attention to integrating family planning programs with the overall health delivery system. Sensitivity of the population and family planning issues in many countries must be recognized and accommodated.

Funding for population activities, while generally greatest in the largest countries, should vary with the severity of population problems. Biomedical research should continue to emphasize applicability to low-income countries. AID should actively promote family planning programs in the private sector in developing countries, and U.S. representatives to multilateral agencies should advocate similar policies.

Environmental Sanitation. An abundance of potable household water is a prerequisite for personal and family hygiene. Primary responsibility for financial assistance to developing countries for construction of urban aqueducts and sewerage has been assigned to IFIs, particularly the World Bank. AID should increase financing for rural environmental sanitation projects; DOD should emphasize these projects in civic action programs in developing countries; and the Peace Corps should expand use of its volunteers in training managerial personnel for development, maintenance, and operation of rural environmental sanitation facilities and provide volunteers for such functions until host country nationals can be trained. **Increased priority should be given to rural sanitation programs where they can be coordinated with health services delivery systems.**

Communicable Disease Control. Recent resolutions of the World Health Assembly stress the vital importance of increasing immunization services. **Cooperation between AID, HEW (CDC), and the Peace Corps is strongly encouraged for development in low-income countries of self-sufficiency to implement immunization programs.** International organizations should be encouraged to cooperate in a continuing and expanding effort to control tropical diseases. In support of these goals, a stronger international system of epidemiological surveillance will be required.

Medical Disaster Relief. Disaster relief in developing countries should be integrated into long-term programs of development assistance, often taking the form of major infrastructure reconstruction projects. Fuller utilization should be made of the resources of the government, including continued and expanded participation of DOD, HEW, NASA, the National Science Foundation (NSF), the Environmental Protection Agency (EPA), and other agencies that have special capacities in this area. We must ensure, however, that services are suitable to the cultural milieu and social organization of a country. We would also direct attention to coordination between government- and private-sector efforts to ensure that a full range of resources is distributed according to needs and not inappropriately clustered in areas of relatively easy access.

Constraints to Program Implementation

International health assistance programs are limited by constraints in various areas. International health assistance policy varies among U.S. Government agencies and in nongovernment organizations such as the IFIs. We should carefully reexamine current government policies, seek to establish a governmentwide basis for such policies, and encourage nongovernmental organizations to reexamine the appropriateness of their policies. Authority for international assistance is clear and generally adequate in AID and Peace Corps. In other agencies, however, particularly CDC, the Health Services Administration (HSA), and the Health Resources Administration (HRA), authority for more direct collaboration would be fruitful.

Relieving other constraints to program implementation will require better information sharing procedures, functionally based budget summaries, and improved management systems and staffing for international health assistance programs.

Finally, the U.S. public should be provided with a greater understanding of our goals and programs with respect to international health so that they can more effectively express their concerns.

Recommendations

The United States should call for a coordinated policy for international health-sector development from the international community. We recommend a 10-year program for the 1980s involving increased support for health from donor nations and multilateral agencies, and increased dedication to basic human needs by low-income countries.

The United States can demonstrate its leadership in health-sector development by:

- **Creating foreign-based research and training centers to increase the capacity of governments to meet their own health needs.** We should advocate and seek the participation of appropriate multilateral organizations to which we belong. Two initial subject areas for such centers are health planning and integrated health systems development;
- **Conducting a specific study to determine how best to provide incentives and eliminate disincentives for health industries to invest in countries needing health goods and services;**
- **Improving technical assistance in health.** This should be accomplished by:

  – Strengthening the coordination of U.S. efforts in international health with those of the U.N. agencies;

  – Increasing and upgrading AID and Peace Corps professional staff involved in developing, managing, and evaluating health and health-related programs;

  – Mobilizing the technical capacity of the Public Health Service (PHS) to provide assistance to developing countries through the foreign assistance program, a first step being to include them in the Development Coordinating Committee;

  – Encouraging developing countries and U.S.-based multilateral firms in health-related industries to facilitate the transfer of commercial health technology;

  – Including health technology in the charter of the Appropriate Technology Institute;

  – Enhancing the role of research and development in U.S. health assistance to developing countries.

Chapter 8: Health Manpower for International Health Programs

Health manpower problems hinder the development of health services throughout the world. Proper training and use of manpower can be the most effective way of achieving health delivery systems responsive to national needs.

The international health manpower pool includes all foreign nationals working in foreign health systems and any person engaged in health-related activities that involve more than one country. These individuals perform preventive and curative activities, and participate in work connected with population and nutrition concerns, as well as control of the environment.

International health manpower training embraces any activity to develop and maintain competent personnel for international health-related services, including provision of basic, advanced, or specialized skills in degree or certification programs, on-the-job training programs, training exchange programs, and continuing education. In this chapter, we examine U.S. Government use and training of international health manpower, migration and maldistribution of such manpower, and health manpower needs worldwide. We also include recommendations for a comprehensive U.S. international health manpower policy.

U.S. Use and Training of International Health Manpower

The U.S. Government presently employs over 2,000 full-time equivalent personnel in its major agencies engaged in international health activities. It trains 2,000 foreign health professionals representing 75 projects in at least 37 foreign countries, and annually assigns at least 100 expert consultants in international health. Agencies involved in these activities include the Peace Corps, AID, HEW, and DOD. **A lack of coordinated activity among agencies impedes the effectiveness of health efforts in the international arena.**

U.S. Schools and International Health Manpower

Despite great interest in the United States and abroad in involving U.S. health professions schools in international activities, there is no current systematic effort to assess the existing international involvement of these schools. Most American medical, dental, and public health schools have agreements with foreign countries and many offer courses relevant to international health. **Yet there is no single, direct entry point at which schools can introduce initiatives for involvements in international health.**

Health Manpower Migration and U.S. Supply

Between 1965 and 1975, 45,765 alien physicians came to practice in the U.S. health system; over 61 percent of these came from developing nations. Since 1969, 8,000 persons designated "nurses" have entered the United States annually. Thus, the most well-endowed nation on earth in terms of health manpower is receiving international health assistance from nations little able to spare the manpower. In 1976, Congress passed P.L. 94-484, the Health Professions Educational Assistance Act, requiring foreign medical graduates to pass technical and language exams, and to make a commitment to return to their own countries following completion of their programs of study in the United States.

The Bureau of Health Manpower estimates that this and related changes will reduce the number of foreign-trained physicians entering this country to about one-quarter of current levels.

International Health Manpower Resources

We think it likely that health-manpower-population ratios in developing countries cannot be substantially improved by the end of the century for several reasons: 1) the scarcity in developing countries of persons having primary and secondary education; 2) the duration of professional studies; 3) high costs of training; 4) brain drain; and 5) budgets insufficient to pay health manpower salaries. In developed countries, 1 physician per 1000 persons is the norm; the majority of developing nations have less than 1 physician for every 10,000 persons, and 10 countries have 1 physician for every 50,000 persons.

Health Care Delivery Systems

The most critical need of the developing world's rural population, as we perceive it, is for simple, primary and preventive health care, environmental sanitation, and proper nutrition. Less skilled personnel can and should treat most illness in developing countries. Indigenous health providers should be thought of as a potential resource rather than an obstacle to health care delivery in developing countries. A three-tiered system involving community health workers, mid-level health workers and health professionals staffing rural health centers and hospitals, with highly skilled specialists staffing state or national hospitals in urban or provincial capitals, would afford feasible, accessible health care to most of the world's population in developing countries. Recent WHO and United Nations Children's Fund (UNICEF) studies, however, indicate that close working relationships do not usually exist between health, education, and overall government policy development systems. Most countries, we have found, appear to produce health personnel who do not directly relate to the most pressing needs of a given country.

U.S. Policy and International Health Manpower

We believe the U.S. Government should have an explicit, evolving policy on international health manpower which communicates the commitment of the United States as a nation. This comprehensive policy should address the areas of U.S. assistance to other countries, domestic health resources immigration policy, exchange programs, and a national program for international health.

Recommendations

We support the following recommendations about health manpower and international health:

- **U.S. training assistance to other nations should be geared to helping them develop their own resources to meet their domestic and international manpower needs.** Our assistance should also foster self-sufficiency in health research and training; local training programs are rare in many developing countries;

- **Training should occur at all levels of health services, with emphasis on health planning and policy making and on epidemiology.** Training should take place on location whenever possible, especially in rural areas, and health personnel should be trained to work within the context of local culture. The ability to understand and work with, rather than against, local beliefs and practices should be as important as technical expertise in selecting personnel. U.S. health workers abroad should be phased out as soon as they can be replaced by local workers;

- **Foreign medical personnel should be given no further encouragement to practice in this country on a long-term basis** since America is now producing enough health workers to fulfill its own needs; but exchange programs for specific periods of research and training should continue to be encouraged. A program of Presidential exchange scholars would help American health personnel become students of international health problems rather than skilled exporters of American solutions to foreign problems;

- **The U.S. Government should serve as a clearinghouse for information and as a placement center for U.S. citizens, schools, and organizations interested in working on international health;**

- **The government's own health employees should develop broader experience** by rotating within governmental health organizations and also working in the health institutions of foreign governments or foreign private concerns;

- **American government agencies involved in international health should maintain a balance of international health generalists and technical specialists, and should avoid the frequent imbalances which now exist;**

- **International health policies and programs, with all considerations related to manpower, should be reviewed and monitored on a governmentwide basis, with advice from outside sources;**

- **The reservoir of American expertise in international health should be tapped.** The government can do this by establishing international health as a priority, providing a focus in government to carry out this priority, staffing agencies with trained and motivated personnel, and providing adequate funding to permit government, universities, and other private-sector organizations to work together toward a strong health manpower program;

- **The United States should establish a program for Presidential Scholars in Global Health.** Twenty Associate Scholars, at early stages of their careers, would be selected to study problems of implementing change in international health. Four Senior Scholars would prepare papers on contemporary problems; they would work and lecture at NIH, and be based at the Fogarty International Center;

- **The United States should also establish an International Health Service Corps, building on the Peace Corps and on ACTION.** The National Health Service Corps could double the number of Public Health Service Scholarships awarded annually, and allow 150 to 250 students (a number equal to the increase) to satisfy their scholarship payback requirements by serving in the International Health Service Corps.

Chapter 1

Foundations for U.S. International Health Policy

"I reaffirm to the Ministers of Health and to the nations you represent my belief in the basic right of every human being to enjoy the highest attainable standard of health. No one nation can achieve this goal by itself. But by working together, we can continue to improve the standards of health and nutrition for people in all nations. My nation will do its part to support effective health and nutrition programs around the world."

– Jimmy Carter
Special Message to the Ministers of Health of the Americas
September 26, 1977

The United States has a long-standing and continuing commitment to the enhancement of world health. While present U.S. international health involvement is mandated by a multitude of international treaty obligations and U.S. legislative authorities, the underlying rationale for our international health policies lies in the recognition of the fundamental human right of all people to enjoy the highest attainable standard of health. This report is a manifestation of that commitment and a first step toward a stronger partnership with all nations to improve the health and well-being of all people.

The people of the United States have long supported the improvement of health care throughout the world. A recent survey (Laudicina, 1975) demonstrates that American support for continuing our health assistance to other countries remains strong. The survey found that "Americans overwhelmingly prefer medical assistance for the people of the developing world as a form of foreign aid" and favor a redistribution of aid "so that most would go to helping the poor in other parts of the world" (Laudicina, 1975). The U.S. Congress has supported U.S. development assistance guided by its "new directions" foreign aid legislation to benefit the one billion poorest people in the world.

In recent years great scientific and technological strides in health have been made throughout the world. Yet despite many notable medical breakthroughs, generally high standards of health for all people have yet to be realized. Aggravated by problems of high population growth rates, the health status of literally hundreds of millions is left wanting for lack of adequate nutrition, clean water, and the most basic health services. This situation, which has contributed to a multitude of worldwide political, social, and economic problems in the 20th century, cannot and must not be ignored. Accordingly, we believe the United States, in cooperation with the nations of the world, must reexamine past lessons and develop a global health policy and strategy which meets the needs of both the developed and developing countries of the world.

All nations recognize that their own health and the health of others depend on greater collaboration among nations to improve human well-being. Until recently the United States has primarily concentrated its international health efforts on development assistance activities and scientific cooperation and exchange. Furthermore, in many areas private-sector involvement in international health has declined from previous levels.

The result has been that fewer opportunities are available for international health initiatives than might have been if: (1) international health had had a more direct relation to other areas of U.S. concern, namely, international relations, international commerce and trade, and U.S. domestic health policy; and (2) the U.S. Government had fostered a broader role for the private sector in international health activities.

Clean water, adequate amounts of nutritious food, moderate family size, and primary and preventive health services constitute the basic means to attain good health. The term "international health" will be used generically throughout this report to refer to activities related to the provision of these means. Such activity will be considered "international" if more than one country is involved or if a country is engaged in health services primarily for the benefit of people in another country.

U.S. relations with other countries are becoming more sensitive to human rights and needs. Therefore, health must be considered more directly in the formulation and conduct of our international relations – both in terms of providing expanded opportunities to improve health globally and in terms of avoiding international activities which may worsen health globally. Regardless of ideology, health is a common concern of all people no matter where they live. It also constitutes a profound channel of communication which often remains open when others may be closed. Thus, it is apparent that U.S. international relations activities provide an effective means through which to expand the humanitarian impact of our international health efforts.

U.S. policies on commerce and trade with other nations also hold great potential for improving the effectiveness of our international health activity. For example, balance of payments policies affect the selection of financing mechanisms for overseas health activities. Trade policies influence international commerce by private industry in the health sector as well as other areas of international trade which may affect health. Thus, U.S. international health activities could be advanced if our international commerce and trade policies gave more direct consideration to international health goals.

No U.S. international health policy will be credible to other countries or acceptable to the people of the United States, if it is not consistent with strategies to improve health within the United States. For this reason, there should be a close relationship between our domestic health goals and our international health policy. The United States should accept no lesser goal than full protection of the health of its own citizens. Our international health strategy, therefore, must include international health activities undertaken to protect and improve the health of U.S. citizens.

The U.S. private sector, whose current involvement in international health already exceeds that of the Federal Government, possesses unique resources and knowledge valuable to world health needs. Much of this knowledge resides in U.S. educational institutions. Much of the talent for putting this knowledge to work in other countries resides in numerous private and voluntary organizations (particularly those that work at the grassroots level), and in various private organizations and corporations (especially those with significant international trade in the health sector). In order to better use this knowledge and talent, the U.S. Government should facilitate a greater role in international health for members of the private sector who are now or who potentially could be effective participants in international health activities.

U.S. international health policy, therefore, must recognize the full potential both within and outside of government for increasing the humanitarian effect of our international health activities. In this regard, health activities integrated with development assistance and associated with research and scientific exchange will continue to play an important role in our international health efforts. However, greater awareness of the relationship between international health and international relations, commerce and trade, health of U.S. citizens, and an expanded role for the private sector will lead to an enlarged base from which to achieve the humanitarian goals we seek. It is also true that greater consideration of international health by those responsible for these various areas can benefit their distinct interests, whether social, economic, or political, as well as the specific interests of international health.

This report analyzes the relationships that exist between these areas and world health.

The World Health Situation

There exists a wide diversity of health patterns throughout the world. The average life expectancy at birth ranges from 75 years in Scandinavia to 42 years in Central Africa. Infant mortality per 1000 births ranges from 8 in Sweden to 175 in Western Africa. Disease incidence and prevalence vary greatly from one region of the world to another.

This wide range of health conditions is the result of variances in social, demographic, economic, and climatic conditions between nations and regions. An understanding of why these differences exist is crucial to the development of international health strategies.

We are living in the midst of a centuries-long process of demographic transition. Population has grown explosively in the world since 1705 as a result of a decline in death rates fostered in part by advances in medical science. Birth rates have also declined, but only after a considerable lag and not in every nation. The demographic transition is largely linked with socioeconomic development and took place first in the developed countries. These countries have now nearly established a balance between birth and death rates. Developing countries, however, show a wide range of social patterns: Some have health and fertility patterns like Europe and North America; others have significantly better health but unchanged birth patterns; and many are still in the early stages of improving health status.

The demographic transition is reflected in the age structure of the population. The developed countries now have populations of relatively uniform age distributions, and the next quarter century will see a significant increase in the proportion of their populations over age 65. In comparison, the developing countries have a high proportion of children (more than 50 percent under the age of 15 in many countries) and few elderly persons.

The improvement in health among children is the most notable aspect of the demographic transition in the developing world. Improvements in nutrition and reductions in communicable disease effected by development are most visible in the health of children. Heart disease, cancer, stroke, and degenerative diseases which afflict older people most frequently have been less vulnerable to medical progress; some may actually be made more prevalent by socioeconomic development. Therefore, in poor countries, the youthful structure of the population, compounded with the high prevalence of diseases specifically affecting children, creates a characteristic pattern of morbidity. In developed countries, the increasing proportion of older people and the low prevalence of children's diseases create a radically different pattern.

The divergent patterns of health status between developed and developing countries are also accentuated by climatic conditions. The developed countries of the world are largely in temperate climatic zones; the developing countries are largely tropical. Therefore, the parasitic and vector-borne diseases of tropical areas affect developing countries far more than developed ones.

Economic conditions and health status appear to vary in direct relationship with each other. Although observers of economic development differ in their predictions, many foresee a continued modest rate of growth of per capita gross domestic product in the developed countries, the absence of environmental catastrophes, and continued improvement in health science and medical technology. If these projections are correct, health should continue to improve in the United States, with similar improvement occurring in other developed countries.

In the developing world, the health situation at the end of this century will be affected by average economic growth and the distribution of that growth. Experience in these countries over the last decades has shown that high aggregate growth may accompany increasing poverty, mortality, and ill health. Thus, even with economic development, continuing inequity in distribution of income in developing countries will prolong the disparity in health status and health resources between developed and developing countries.

This international diversity of health and health service patterns affects international health strategy for the United States. Our relationships with developed countries will most likely emphasize shared interests in similar demographic, health, and health resource patterns. With developing countries, our relationships will emphasize humanitarian concerns through collaborative efforts to help them solve their priority health problems.

U.S. Involvement in International Health

There has been a long history of mutual cooperation between the United States and the other nations of the world to improve health conditions. Since the 1800s, the United States has recognized that the maintenance and improvement of our health and well-being depend upon close cooperation with other nations. In 1851, for example, we participated in the "First International Conference on Quarantine," a historic event in the continuing search for means to protect and improve health. In 1902 the Pan American Sanitary Bureau, now known as the Pan American Health Organization (PAHO), was established as an integral part of the inter-American system.

Following the founding of the League of Nations after World War I, the newly established Health Organization of the League laid the foundation for and contributed greatly to the improvement of health worldwide. Moreover, its organizational experience furnished the basis for the present World Health Organization (WHO).

Governmental moves toward formal international cooperation in health protection were accompanied by rapid growth of medical knowledge. At the same time, improvements were made in the education and training of health personnel and scientifically based methods were developed to control, prevent, and treat communicable diseases which had both accompanied and impeded movements of people. Western Europe, particularly England, Germany, France, and Austria, served as the major source of knowledge, training, and technology for many of the leaders of the U.S. medical community. New knowledge was quickly diffused across national boundaries.

This pattern of international cooperation in health and the development of medical knowledge demonstrated its value during World War II. For the first time in history, a major war was not associated with greater loss of life from epidemic disease than from the war itself. Intergovernmental systems set up by the League of Nations and the International Office of Public Health in cooperation with the U.S. Public Health Service (PHS) helped to abort epidemics, save tens of thousands of lives, and hasten postwar reconstruction.

Bilateral U.S. health programs also grew out of national needs in World War II. In response to its perceived national self-interest, the United States, as part of the war effort, embarked in 1941 upon an unprecedented bilateral foreign aid program within the Americas to secure inter-American cooperation. The program was formalized as the Institute of Inter-American Affairs, the predecessor of the current U.S. Agency for International Development (AID).

World War I and World War II also led to U.S. relief efforts of unprecedented generosity. The American Relief Commission was founded at the outbreak of World War I, with Herbert Hoover as chairman, and provided large amounts of food to needy populations. American commitments in World War II to work for international human rights, exemplified in President Roosevelt's "Four Freedoms" speech, were dramatically realized by the Marshall Plan. Similarly, the United States, under President Truman's leadership, invested up to 2 percent of its gross domestic product in the reconstruction and development of Europe. This policy, of course, was uniquely successful in humanitarian terms, but it also resulted in long-term economic benefits to the United States. President Kennedy, recognizing the need for a partnership with developing countries to solve their difficult problems of economic development, created the Alliance for Progress and the Peace Corps.

Current U.S. Activities

Currently, 22 U.S. agencies have been identified as having either administrative or legislative responsibilities relating directly or indirectly to international health (see Figure 1).* Together, these 22 agencies spent $528 million in FY 1976 on international health and health-oriented activities. Of this amount, $328 million was spent on bilateral programs and projects; $103 million went to multilateral organizations such as the U.N. specialized agencies and the Organization for Economic Cooperation and Development (OECD); an estimated $54 million went to international development lending institutions such as the World Bank and the African Development Bank (AFDB); and $43 million was spent by the National Aeronautics and Space Administration (NASA) on health-related projects such as space biology. In addition, five agencies spent $669 million to deliver health services to U.S. nationals (and some others) abroad, most of which ($632 million) was spent on Department of Defense (DOD) health facilities and services for military personnel and their dependents.

Private-sector involvement in international health is even more extensive financially. An estimated $1.9 billion in exports and $700 million in imports of medicine and medical supplies took place in 1976. In 1975, overseas sales by U.S. ethical pharmaceutical companies alone were estimated at $4.7 billion; in the same year, these companies spent $144 million on health research in foreign countries.

---

*Because of its great size, Figure 1 can be found in the pocket at the back of the book.

Churches, voluntary agencies, foundations, and universities are also extensively involved in international health. Church-supported nursing and medical schools, for example, have contributed significantly to manpower development in various nations. Today there are about 4,000 church-related hospitals and more than 500 church-related training programs, ranging from those for village workers to medical and nursing schools, throughout the developing world.

Foundations also play a catalytic role in improving international health. For example, they have been instrumental in developing and supporting U.S. research efforts in tropical diseases and fostering effective U.S.-foreign linkages in population and family planning research and training. Also, foundation leadership and investment have provided research and training facilities for the health professions and fostered national and regional educational independence as well as interdependence.

Private voluntary organizations, which are uniquely Northern European and North American in origin, also play a major role in international health. These include charitable agencies, cooperatives, professional societies, labor unions, and other organizations. These are perhaps the most effective institutions to foster a people-to-people approach to international cooperation to improve health.

Toward a U.S. International Health Policy

We believe that the United States should continue over the next decade to collaborate with the developed world on shared health interests. Health in the developed world will be characterized by improved life expectancy and a concomitant rise in health services problems of the mature and elderly. Health resources of the developed world will expand and become increasingly complex as health technology grows more sophisticated.

We also believe that the United States should expand its concern for the health of the developing world and increase its collaboration with the rest of the world to close the gap between existing and attainable health status, especially where that gap is greatest. If the world continues on its present course, great disparities in health status between rich and poor will continue. However, real hope exists that by strengthening our efforts to address the basic human needs of the poor in developing countries, their health status can be radically improved in this century. If we ignore the cycle of ill health and poverty at home and abroad, we face the possibility of catastrophic health problems on a world scale. U.S. international health policy, therefore, must be concerned with ensuring the best possible evolution of improved health in the developing world.

Chapter 2

International Relations and Health Diplomacy

U.S. relations with other countries are guided by a body of operating principles known collectively as U.S. foreign policy. In this chapter we shall examine the nature of the relationship between international health and U.S. relations with other countries. We shall investigate the necessity for such a relationship; describe current organizational activities in health and foreign relations; discuss conditions affecting policy and program effectiveness in these areas; and recommend changes in policy, strategy, and organization to achieve a stronger role for international health in the basic human needs strategy of U.S. foreign policy.

Basis for the Relationship Between International Health and International Relations

International health policy is becoming more germane to U.S. foreign policy and international relations. As U.S. concern for human rights and human needs increases, the relationship between health and international relations will gain in relevance. Other factors are also involved: As collaboration in health becomes a greater responsibility of world citizenship, it becomes more important to direct our international health activities so that they respond to specific differences among countries. Solutions to some health problems will require wider foreign collaboration through mechanisms other than health channels. Finally, international health activities on today's scale often involve political considerations or provide opportunities to improve foreign relations despite any desire or attempt to avoid such involvement or ignore such opportunity.

Human Rights and Human Needs. This Administration has emphasized human rights in our U.S. foreign policy. Publicity has centered on actions related to political and civil rights in foreign countries, but U.S. foreign policy includes concern for the social and economic rights of mankind as well.

President Carter in his inaugural address affirmed the inextricable relationship between U.S. foreign policy and human rights and human needs. He said:

> . . . there can be no nobler nor more ambitious task for America to undertake on this day of a new beginning than to help shape a just and peaceful world that is truly humane. . . We will fight our wars against poverty, ignorance, and injustice, for those are the enemies against which our forces can be honorably marshalled.

In his April 30, 1977, address on human rights policy, Secretary of State Cyrus R. Vance referred to the resolution of the Carter Administration to make *the advancement of human rights a central part of our foreign policy.* He defined human rights in these terms:

> First, there is the right to be free from governmental violation of the integrity of the person.
>
> Second, there is the right to the fulfillment of such vital needs as food, shelter, health care, and education.
>
> Third, there is the right to enjoy civil and political liberties.

He went on to say:

> Our policy is to promote all these rights. They are all recognized in the Universal Declaration of Human Rights, a basic document which the United States helped fashion and which the United Nations approved in 1948. There may be disagreement on the priorities these rights deserve, but I believe that, with work, all of these rights can become complementary and mutually reinforcing.

Cooperation with other nations to improve social and economic conditions should be balanced with our concern for political and civil rights. In both domestic and international forums, we should be able to cite strategies for positive action to meet social and economic needs as well as to avoid infringement on civil and political rights. Quite simply, the United States must really *care* about human beings, and our policy must effectively demonstrate our regard for the well-being of people here, in our allied nations, and in all countries of the world.

If all countries improved their health status as much as the most effective country health programs have, 10 million deaths might be averted each year. If available and affordable technologies were utilized, even more deaths could be prevented. Freedom from unnecessary death, disability, and disease is a right of all people. We believe worldwide dedication to this principle ranks equal in importance with maintenance of peace and security.

Alleviation of unnecessary suffering and ill health in *any* country is as important a part of respect for human rights as protection of civil and political rights. The concern for basic health needs is universal, but the instruments of policy may differ. Although we stress the principle of self-reliance, many countries still need assistance in order to achieve the goal of improved health for their people. When we speak of initiatives to meet basic health needs, it is often interpreted as only health assistance to poor countries (see Chapter 8). The United States should, however, emphasize *development cooperation* assistance to meet basic human needs, giving priority to those countries with the greatest needs and the highest commitment to meeting them. Other countries will be able to purchase needed health technology, equipment, and supplies, and still others will be able to participate fully with the United States in collaborative health efforts. Finally, stress on basic health needs in international settings must be matched by a serious effort to meet the basic health needs of

U.S. citizens. International health activity must be recognized as an important adjunct to the improvement of domestic health.

Perhaps the most significant recent initiative in the area of human rights resulted from the Helsinki conference on "Security and Cooperation in Europe." The Agreement, signed in 1975 by the United States, Canada, and 32 Eastern and Western European countries, creates a number of obligations in health:

> To improve cooperation with other signatories in the fields of economics, science and technology, and the environment . . . including medicine, public health, and environmental research.
>
> To ensure equality of rights between migrant workers and nationals of host countries with regard to conditions of employment and work and social security.
>
> To facilitate the freer and wider dissemination of information of all kinds.
>
> To increase the exchange and dissemination of scientific information and documentation [specifically programs in] medicine, in particular, basic research into cancer and cardiovascular diseases, studies on diseases endemic in the developing countries as well as medico-social research with special emphasis on occupational diseases, the rehabilitation of the handicapped, and the care of mothers, children, and the elderly.

Foreign Relations. We recognize that no matter how well-intended our motives, if we base our relationships with foreign governments on human rights principles, problems may arise as we work to carry out U.S. policies. Other countries, which are dissimilar to ours in history, culture, and political, social, and economic circumstances, are also likely to differ in their values and even in their interpretations of political and civil rights. While positive efforts and cooperation in achieving health goals are vital, the ways in which the United States can influence human rights abroad are somewhat limited.

Human rights policy, therefore, calls for continued recognition of the differences between East and West in matters of civil and political rights. It also requires continued efforts to build upon cultural, scientific, and technological exchanges with a view toward improving social and economic rights. For example, expansion of trade with Communist countries has been stressed in recent years: The health sector can and should play a leading role in this exchange. Health can be especially important in these trade discussions. We have witnessed the extraordinary health progress made by China with relatively few resources, and we can readily see the similarity between the United States and the Soviet Union in problems, resources, and issues related to health.

U.S. relations with the OECD nations are based upon strong economic interdependencies among these countries, as well as on patterns of political and military alliances. The importance of continued cooperation and a potential for international economic or political friction call for ongoing efforts to build and maintain formal and informal ties with these countries. Again, mutual concern for health offers a formidable channel for developing and strengthening OECD ties by such means as scientific and professional exchanges, joint programs, reciprocal health care financing agreements, and health-sector trade.

U.S. relations with the developing world also offer the opportunity for new health initiatives. For instance, the oil exporting countries of the Middle East are striving to achieve major social and economic development goals in a very short period because of large balance of payments surpluses gained from oil exports. The United States can cooperate with these countries to improve health through the sale of U.S. health technology, goods, and services.

In addition, some developing countries such as Taiwan, Korea, and Brazil appear likely to enjoy such rapid political, social, and economic developments over the next decade as to join the ranks of the developed world powers. These rapidly developing countries may require a flexible strategy to accommodate a shift from development assistance to cooperative and commercial programs.

Global Problems Affecting Health

Certain conditions impinge upon the health of the entire planet and force us to look beyond national borders and concerns. These global problems affecting health include atmospheric pollution, depletion of the stratospheric ozone layer, pollution of the oceans, explosive world population growth, international migration (including that of health manpower), and the possibility of an inadequate world food supply in the coming decades. Conditions such as these threaten individual health and jeopardize the economic growth and political and social stability of the world.

Global health problems are typically not short-term, confined crises; by definition they affect the entire world. They are therefore beyond the remedial powers of any single country. Such problems are often created by worldwide acceptance of a new technology and they may require development of another technology to solve them. Careful negotiation is required to establish multicountry arrangements or international agreements responsive to these problems, and is truly a function of foreign policy.

A recent global event affecting U.S. foreign policy was the migration of increased numbers of foreign health workers to this country. During the late 1960s and early 1970s, immigration laws favored medical practitioners and other health professionals; as a result, tens of thousands of these people migrated to the United States, thereby affecting U.S. domestic health policy. Significant problems were sometimes created in the countries of origin and U.S. foreign policy had to respond.

Another demographic problem confronting U.S. foreign policy experts is that of illegal immigration, especially from neighboring countries. While not a global problem per se, the situation does affect our overall immigration policy. In the next decade, population pressures and economic stagnation abroad will continue to encourage illegal immigration. Short-term U.S. foreign policy must deal with the legal aspects of the problem, but we must also consider long-term population pressures in our country – whether we can and will sustain them.

Multilateral diplomacy takes on special significance because global health problems require the coordinated activity of many countries. The United States should continue to work with WHO, and UNICEF, FAO, and other U.N. specialized agencies and multilateral organizations on issues of global significance. The Department of State should serve as arbiter between domestic and international agencies with professional and programmatic concern for these issues, coordinating and strengthening the overall government position, and making clear our policies and rationale for them.

Many aspects of global health problems are scientific and technological, as we have already pointed out. These problems also cut across the traditional boundaries of foreign and domestic policy. For these reasons we suggest that the Department of State and the Office of Science and Technology Policy (OSTP) in the White House continue to play principal roles in policy concerning global health problems, and that they collaborate with the National Academy of Sciences (NAS), the National Science Foundation (NSF), and other components of the U.S. scientific community as necessary.

We recommend that these agencies jointly identify criteria for the selection of global health problems; organize formal studies to identify, classify, and evaluate such problems; and prepare periodic reports about them for the President. We also strongly suggest that NASA programs monitoring certain global health problems continue to be fully supported. State Department; DOD; and the Department of Health, Education, and Welfare (HEW) support for such work is indispensable, given NASA's existing budgetary constraints.

Foreign Policy. As we assume increased responsibility in a global partnership which seeks to improve the health of people everywhere, we can expect that our international health activities will expand. Thus, the need for closer coordination of U.S. foreign policy and international health activities, as well as their mutual support, will become more urgent.

At its basic level, international health activity involves the development of knowledge and its application. That application does not exist in a vacuum. Rather it has impact on the economic and social structure of a country, and so unavoidably involves political dimensions. The development of international health knowledge, however, can be apolitical to the extent that science, cultural exchange, or other similar pursuits are carried out for the common good of all countries.

The United States is continually seeking to improve its bilateral and multilateral relations with other countries in many ways. For example, it exchanges athletes, dancers, opera companies, and scientists; it seeks trade conditions satisfactory to all sides, and provides technical assistance and sometimes direct aid. To exclude health from this form of diplomacy on the grounds that it leads to politicalization of health, or that it runs counter to scientific and professional standards, attributes to these activities only the most negative motives. Such exclusion ignores the positive humanitarian benefits which can accrue immediately and later as a result of improved relations, and restricts a potent channel for increasing the amount and level of international collaboration in health (see Figure 2). Moreover, such a restriction in itself could be perceived as political.

Thus, we define *medical diplomacy* as collaboration between countries on health matters for the purposes of improving relations with one another. The health benefits of this collaboration may accrue to the interacting countries and/or to some other countries. Medical diplomacy of this sort has the peculiar advantage of producing a humanitarian benefit while simultaneously developing improved relations. Furthermore, health initiatives, particularly medical ones, can be especially effective in opening channels of communication. Medical personnel have relatively free access to foreign countries for participation in individual health care or other humanitarian programs. Their presence is usually valued and their integrity well established.

For example, if a highly specialized medical team visits a leader of a foreign country, the initiative may have symbolic value, and the team may have opportunities to discuss more general matters informally. U.S. researchers and personnel of private voluntary organizations are often welcome in foreign countries when diplomatic channels are closed or circuitous. The transfer of foreign patients to the United States for specialized care not available anywhere else in the world may be another potential aspect of medical diplomacy to be further explored. Humanitarian efforts such as these foster reciprocal good will and understanding.

In a sense these examples of medical diplomacy are illustrative of human rights policy: Initiatives dealing with basic health needs are and should be an aspect of our overall foreign policy.

Health initiatives with foreign countries should be made after we have considered all other U.S. concerns with those countries and the degree of mutual interest in health. We suggest that particular attention be given to health initiatives with countries where we do not have established relations. Although health initiatives would not constitute formal approbation, they would be a step toward opening lines of communication. Utilization of health as an apolitical type of international cooperation could facilitate the eventual reestablishment of diplomatic relations.

We reject the use of health sanctions in bilateral diplomacy. The lack of diplomatic ties with a country should not preclude the free flow of published medical

Figure 2. Medical Diplomacy and Diplomatic Relations

U.S. Agency for International Development

- Health Manpower and Institutional Development
- Health Auxiliary Training
- Medical Services Organizations
- Disease Prevention and Control
- Health Services Delivery
- Emergency Relief Services
- American Schools and Hospitals Abroad
- Environmental Health Services

Defense

- Education and Training of Foreign Nationals
- Disaster Relief Services

Federal Aviation Administration

- Joint U.S.-U.S.S.R. Research on Medical Aspects of Flight

Health, Education, and Welfare

- Scholars-in-Residence Program at NIH
- Coordination of NIH International Research Activities
- NIH International Visitors Program
- International Organization Policy Development (OIH)
- Bilateral Scientific Agreements Administration
- Special Foreign Currency Program Administration

Panama Canal Company

- Delivery of Health Services to Panamanians and Other Latins as Requested by American Embassy

State

- Emergency Ad Hoc Medical Support
- Assessed Contributions to U.N. System Agencies
- Science Attaches/Consular Officers
- Policy Monitoring and Representation to International Organizations
- Management of U.S. Bilateral Science and Technology Agreements

United States Information Agency

- Exhibits and Broadcasts on Health Topics

Veterans Administration

- Financing In-Patient and Out-Patient Services for Philippine Veterans

Note: All U.S. international health activities implicitly bear on U.S. medical diplomacy and diplomatic relations. This list is illustrative.

information into and out of that country. We should also carefully examine embargoes of food and medicine to countries having a need for these commodities. The United States should not place itself in the untenable position of standing by in the presence of illness or withholding lifesaving drugs which are not available elsewhere in order to achieve political objectives. The legislation governing health-related exports should be evaluated in terms of U.S. concern for human rights.

Because of our government's commitment to human rights and basic human needs, **we urge adoption of the concept of medical diplomacy and recommend that programs be established to foster its use more systematically than in the past** (see Figure 3).

Private Diplomacy. Bilateral and multilateral diplomacy have typically involved relationships with government agencies. Increasingly, foreign affairs will also include interactions between private individuals and nongovernmental institutions such as private industries and educational facilities; this is true in health as well as in other areas. Thus, we envision continuing concern for support of private diplomacy in international health. This support can come from the leadership of the American health community, which can foster relationships with other countries.

International meetings provide an obvious opportunity for private diplomacy in health. The United States should be represented by the best available people, and representatives should attend such meetings fully prepared to participate on substantive issues. Participation should stress the richness and accomplishment of U.S. experience as well as demonstrate openness and humility to the experience of others. Participants in official delegations to such meetings should be chosen to reflect the private sector as well as public institutions, and to reflect the full spectrum of the U.S. professional community, including women and minorities.

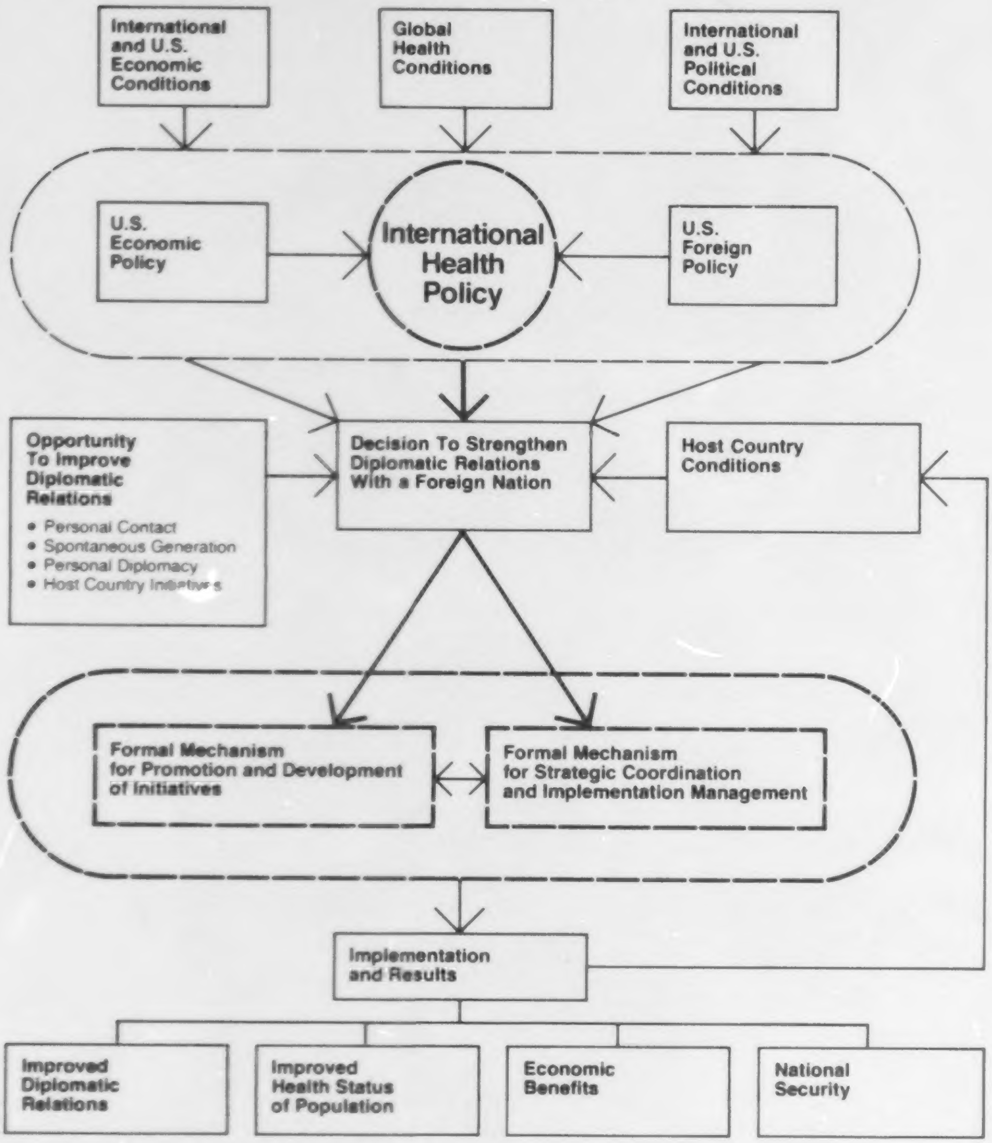
Private diplomacy will also be a major function of U.S. volunteers and employees of nonprofit agencies in health abroad. The Peace Corps can and should be a major force in facilitating contacts between concerned Americans and inhabitants of developing countries. Similarly, private voluntary organizations and foundations can express American concern by helping people abroad.

Current U.S. Government Organizational Activities in International Health

The Department of State. Several bureaus within State play important health roles. The Bureau of Oceans and International Environmental and Scientific Affairs (OES) is the focal point for general policy on international relations with other governments in health, environment, shelter, population, and other areas of science and technology. It coordinates and administers bilateral agreements for technical cooperation.

The Bureau of International Organization Affairs (IO) coordinates U.S. participation in multilateral and international organizations and is responsible for U.S.

Figure 3. Proposed Medical Diplomacy Process Model


International and U.S. Economic Conditions
Global Health Conditions
International and U.S. Political Conditions
U.S. Economic Policy
International Health Policy
U.S. Foreign Policy
Opportunity To Improve Diplomatic Relations
• Personal Contact
• Spontaneous Generation
• Personal Diplomacy
• Host Country Initiatives
Decision To Strengthen Diplomatic Relations With a Foreign Nation
Host Country Conditions
Formal Mechanism for Promotion and Development of Initiatives
Formal Mechanism for Strategic Coordination and Implementation Management
Implementation and Results
Improved Diplomatic Relations
Improved Health Status of Population
Economic Benefits
National Security

Note: Elements of this process depicted by dashed lines are not currently in place. This contributes significantly to difficulties in promoting and implementing medical diplomacy initiatives.

participation in major international conferences. In FY 1976, this bureau administered approximately $111.2 million in contributions to health-related activities of international organizations, most of which went to the U.N. family of organizations (see the appendix to this chapter).

The Economic and Business Affairs Bureau (EB) develops economic policy and facilitates international commercial activities, including the transfer of technology. The Policy Planning Staff (S/P) develops long-term foreign policy for State. The Human Rights and Humanitarian Affairs Office is a focal point for all such issues in State, but has concentrated on areas of civil and political rights.

At present little systematic coordination of international health activities exists among these bureaus and offices in State or between them and other agencies. One exception is a recently reinstituted ad hoc group on population policy; however, a strong case could be made for its integration with health and nutrition activities.

The Department of Defense. The Department of Defense has a major foreign policy and international health role: More than half a million American military personnel are stationed abroad. DOD's FY 1976 budget for international health activities was $28.6 million. DOD incorporates health activities into its overall foreign programs. For instance, it has long conducted research and development on tropical medicine, principally for the protection of U.S. troops stationed in tropical countries. As part of its program in tropical disease research, DOD maintains a network of eight laboratories in tropical areas, most of them in developing countries. Each year DOD also trains numerous foreign military personnel in health-related programs. In the past DOD had a major involvement in community action programs in countries receiving military assistance; often these programs were related to environmental sanitation, communicable disease control, construction of basic health facilities, and similar health concerns.

The flow of military programs in international health should be significantly expanded. DOD currently provides passive assistance in training foreign health personnel; it awaits requests from foreign countries for such training and then satisfies them if possible. We propose the identification of countries in which such training is most important to overall U.S. international health policy and the encouragement of their governments to take an active interest in urging personnel to participate in such training. This is similar to the type of decisions made in a military context. The U.S. military has an unquestioned capacity for health training which could be used for health assistance. Certainly, tropical disease research now performed in military laboratories is of major benefit to host countries. These laboratories should be employed deliberately and more extensively both to deal with public health problems and to foster good relations with other countries. Laboratories could also be used to a much greater extent as outreach facilities delivering care.

The most significant concerns of the U.S. military presence in the foreseeable future will likely continue to be in Europe and Asia. However, the United States is seeking to have the European countries undertake a larger portion of the cost and support of the military establishment in the North Atlantic Treaty Organization (NATO) region. As we shall point out in Chapter 3, there is a significant unused hospital capacity in the military health system in European and Asian countries. Outreach from this system in the form of international cooperative medical research, cooperative training, or other programs would benefit both the host country and the United States. Such programs could have a small but significant role in improving the receptivity of the host countries to U.S. military presence and should therefore be encouraged.

Military equipment constitutes the largest portion of U.S. military assistance abroad. Since health services are a basic part of any military system in war or peace, and since health facilities in foreign military systems require relatively expensive imported medical equipment and supplies, it would appear possible to redirect reimbursable or concessional military equipment to include an element of health service equipment. Such a policy would be feasible, given the health capacity of the U.S. military establishment. It would provide a more humane channel for military assistance, and would be expected to have subsidiary benefits in terms of development assistance and commercial promotion of the U.S. health industry.

The National Aeronautics and Space Administration. The National Aeronautics and Space Administration, through its various satellite programs, has an important role in international health. Satellite technology, for example, is potentially very useful for environmental monitoring, both for pollution and weather changes. Weather may influence nutrition by damaging crops or supplying water to them and may influence the prevalence of disease-carrying vectors. In FY 1976 international health-related expenditures on projects such as Nimbus G and Sage satellites amounted to $43 million. Most countries do not have satellite technology, but they could rapidly acquire the ability to utilize information made available to them through NASA. A program of shared technology should be encouraged.

The U.S. space shuttle program is also worthy of consideration as a means of fostering bilateral collaboration. When the shuttle is put into operation, many experiments in low gravity, high vacuum, or sterile conditions can be performed more easily. This opportunity for biomedical research can be shared with other countries at relatively low cost. Efforts should be directed toward encouraging foreign countries to develop and submit experiments and toward providing facilities to these countries for high-yielding experiments.

Other U.S. Agencies. The U.S. Information Agency (USIA) has a small international health program (FY 1976 funding amounted to $130,000) involving media broadcasts on health topics and exhibits of health technology. The U.S. Department of Labor's program of seminars on occupational health was funded at $60,000 in FY 1976. The Department of Commerce engages in educational and cultural exchange programs. Several other agencies conduct bilateral science and technology exchange programs (see Chapter 6).

U.S. Government Agencies and International Organizations. U.S. policy toward international institutions relates not only to their health activities but to their continued importance in other foreign policy areas. For example, WHO, the Food and Agriculture Organization (FAO), and similar organizations are part of the U.N. family of agencies. The role of these international organizations in promoting world health should be strengthened, but their overall functions must also be considered.

The Development Assistance Committee (DAC) of the Organization for Economic Cooperation and Development is the center for coordination of international development assistance with other donor nations. The primary U.N. agency in the health field is WHO.* It devotes 60 percent of its resources to health assistance in developing countries and fosters scientific and professional exchanges and collaboration on international health problems.

The Department of State does not have a health policy with regard to multilateral organizations, and consequently, there is a lack of strong, effective management of U.S. delegations and budgetary contributions to health agencies. The difficulty of developing a viable health policy becomes apparent in the case of WHO. WHO is an important vehicle for scientific and professional health exchange among nations. It plays a multilateral role in the definition of international standards for quarantine, health statistics, vaccination, health supplies, and other subjects. Multilateral health agencies have also facilitated bilateral exchanges in health between the United States and other countries. In addition, WHO plays a major role in facilitating cooperation among the developed countries on important domestic problems, for example, the International Agency for Research on Cancer.

WHO policy (much like that of the United States) is to stimulate and assist developing countries to create sound national health plans aiming at eventual self-reliance. In recent years, WHO has modified its program, deemphasizing technical assistance, and stressing its roles as catalyst and coordinator. Consequently, representation of the United States before WHO involves balancing the entire range of foreign policy, domestic health policy, scientific and professional concerns, and economic and trade goals in international health. The lack of a coherent U.S. health policy is therefore disabling.

Realizing that its regular budget ($168 million in 1978) is too small to permit a major direct impact on world health, WHO relies increasingly on voluntary contributions. Appeals for additional resources to fund new WHO initiatives in FY 1978 are currently estimated at some $80 million, but WHO authorities believe more funds will become available.

---

*FAO, UNICEF, and the United Nations Development Program (UNDP) also have a significant impact on health status in developing countries. However, WHO is the recognized lead U.N. agency in health.

WHO's priority areas of interest include: participation in and management of a forum for Technical Cooperation among Developing Countries (TCDC); a program for final eradication of smallpox; a worldwide campaign to immunize children against the principal childhood diseases; a major effort to extend research and training programs to conquer the most widespread tropical diseases; an expansion of primary health care, maternal and child health (including family planning and nutrition), rural development, environmental health, and health manpower development; and programs to improve mental health, to create new drugs and appropriate technology for health, and to prevent blindness.

The mechanisms for donor collaboration exist. U.S. participation is already significant (25 percent of the regular WHO budget), and $3 million to $4 million comes from voluntary contributions. Through active participation in the World Health Assembly (WHA), membership on the WHO executive board, and inclusion of its health professionals in WHO expert committees and special programs, the United States has had notable influence on WHO policies and will play an important role in its general work program for 1978-83.

The Pan American Health Organization, which is the regional organization of WHO for the Americas, has a scope of activity similar to that of WHO. The priorities of PAHO take into account such illnesses as Chagas' disease and dengue fever, which are of special concern to this region. U.S. interest in PAHO is acute because it provides a nucleus for health activities with neighboring nations, one important example being the campaign to contain hoof-and-mouth disease within South America.

U.S. influence on PAHO programs and policies is substantial. The United States is closely involved in the work of the governing bodies and contributes 61 percent of the regular budget. Moreover, American health professionals play an active role in the organization.

The United States is also represented in meetings of the Pacific Regional Office of WHO.

Other contributions to international health are made by international development lending institutions: the World Bank, the International Bank for Reconstruction and Development (IBRD), the Asian Development Bank (ADB), the Asian Development Fund (ADF), the African Development Fund (AFDF), and the Inter-American Development Bank (IDB). These are described in the appendix to this chapter and are discussed in detail in Chapter 5.

Conditions Influencing U.S. International Health Policy and Program Implementation

We can identify three classes of conditions influencing the implementation of international health policies and programs. First, there are problems associated with government, including defects in policy organization, staffing, budgets, information, and overall management capability. Second, there are problems in other countries within which we must work, and finally we find problems deriving from congressional considerations of international health policy.

Government and Its Influence. The greatest hindrance to a more direct relationship between international health and foreign policy is the lack of an adequate mechanism to coordinate the various initiatives and programs of the U.S. Government both among themselves and with those of other donors and the multilateral and international organizations. Moreover, no governmentwide international health policy exists as a guide for the activity of these currently disparate organizational entities.

The State Department, given its responsibility for U.S. foreign policy, could provide a forum for other agencies to coordinate that part of their international health activity which involves the common interests of agencies besides themselves. State, however, has viewed its role only as a passive guardian for compliance with broad principles of foreign policy.

The lack of an authoritative focal point for international health policy becomes more apparent as one investigates the internal organization of the Department of State. International health responsibility is diffused among several bureaus, none of which exhibits major staff responsibility. In theory, the Office of Human Rights should have a central role in the coordination of international activities (including health) to foster human rights *and* human needs; but so far there has been only minimal activity of this sort in that office.

Much of the lack of authority and responsibility in international health in the Department of State can be directly traced to recruitment, promotion, and training of foreign service officers.* The Department of State is primarily staffed by career foreign service officers selected for their political, geographic, and economic expertise.

There is both a severe shortage of skilled health personnel and an organizational obstacle to recruiting and advancing professional health personnel within the Department. The long-standing practice of attempting to hire health professionals for limited periods or at very high levels has obvious problems. Moreover, health professionals do not value foreign service experience, and even if they did, professional and technical training in public health does not usually foster either an orientation towards diplomatic evaluation and reporting or the development of the language and personal skills necessary for successful representation abroad. Thus, the Department of State must often try to recruit high-level health professionals to fill positions for which they are not fully trained or qualified, and which will not contribute to their

---

*Indeed, the *staffing* difficulties of the Department of State in the professional and scientific disciplines have long been a subject of concern and have been extensively documented in studies by Congress (particularly the House Science and Technology Committee) and the private sector. (See Bibliography, following Chapter 8.)

long-term career growth. These factors, coupled with a severely constrained organizational structure, discourage the presence of highly skilled international health specialists within State. Our observations also extend to other health-related programs in State, such as nutrition, population, and education.

For example, the Bureau of International Organizations and the Bureau of Oceans, Environment, and Scientific and Technological Affairs have dispersed health responsibility through several divisions. Although these bureaus employ a few specialists in population and environmental health, they are grossly understaffed in health professionals. Other units of State, including the Human Rights Office, Policy Planning, and Economic Affairs, include health among their responsibilities but do not employ public health professionals on a regular basis.

International health programs in support of foreign policy objectives are deserving of special comment in terms of their budgets. The State Department's passive role in international health has not required major budgetary expenditures, especially with respect to the total U.S. expenditure on domestic health or military programs. Actual budgetary expenditures for development and supporting assistance are typically channeled through other agencies, the most significant being AID. Only State's marginal costs of cooperative bilateral health arrangements tend to be attributable to international health.

This is particularly important in terms of systems of accountability. The general tendency in the U.S. Government is to strengthen the accountability of program managers through the budgetary process. Budget reviews provide an opportunity to reexamine program direction and stimulate innovations. Evaluations of expenditures and auditing of a program typically provide strong management control over its implementation.

However, State's role in international health, because of its minor budgetary expenditures, will not be subject to budgetary management and evaluation. **Consequently, alternative forms of reporting and accountability should be developed. We recommend that an annual report for the President be prepared on accomplishments and proposed initiatives governmentwide. This should be accomplished in an integrated fashion, and international health budgets and programs should be examined as a single functional area in association with foreign relations. Such a report will help improve accountability and responsiveness of the many agencies engaged in international health.**

In summary, the capacity of the U.S. Government to strengthen the relationship of international health and foreign relations is at best minimal under existing organization, management, and budgetary procedures. There is inadequate assignment of responsibilities and authority, inadequate staffing, inadequate information, and a strong need for an alternative to present budgetary control mechanisms which do not cut across so-called domestic and international lines.

International Influences. Problems associated with program implementation are also to be found abroad. First and foremost is the lack of leadership commitment to basic human needs in many developing countries. Political authorities receive their support from traditional constituencies, seldom those most in need. Consequently, the poor are often left to fend for themselves. Unless leaders in these countries learn to recognize the explosiveness of societies built on confining poverty and inequity and begin to move toward satisfying the basic human needs of *all* their people, their problems will worsen. The inequity and precariousness of such a position will act to limit the effectiveness of U.S. health assistance programs in these countries.

Many still view the health sector as urban, doctor/hospital intensive, and curative oriented. Managerial talent and skilled technicians, especially in the developing world, are in short supply. Health systems organization at the local level is inadequate.

Finally, there are tariff and import restrictions on medical supplies and equipment in some countries. Analysis of the international constraints to an effective international health program will be an important continuing responsibility of State, AID, Treasury, and the Office of the Special Representative for Trade Relations.

Congressional Influences. Congressional support for foreign assistance varies according to budgetary and humanitarian considerations; it also fluctuates with world conditions. However, given the end of the Vietnam era and the direction of assistance toward aiding the poor (both of which were partly congressional initiatives), support may be rising. However, budgeting for foreign health assistance is a highly problematic area for Congress. As a result of its historical dissatisfaction with foreign aid accomplishments, Congress has regarded the Foreign Assistance Act as a subject warranting especially stringent budgetary surveillance. Budget authorities for international health are scattered throughout the government and nowhere are budgets analyzed and evaluated on the basis of a governmentwide set of goals and objectives.

Congress now restricts to 40 the number of countries in which AID can operate development assistance programs. As a further complication to an international approach to basic human needs efforts, there are inadequate congressional guidelines for the stated requirement to concentrate on only the poorest countries and people. Congress also excludes AID from certain countries because of political reasons, notwithstanding humanitarian needs.

Other congressional controls limit appropriations to 1 year, thus requiring frequent and comprehensive reporting (for example, procurement guidelines, shipping requirements, matching funds, and environmental impact analyses). Program implementation is thereby restricted. The effect of these restrictions is to limit long-term planning and extended commitments. While such measures attempt to legislate compliance with overall foreign policy, their increasing number and complexity have required larger staffs and have severely complicated implementation efforts.

Among all types of bilateral assistance programs, the use of P.L. 480 funds enjoys considerable congressional support. These funds are used for the purchase of agricultural commodities, a great benefit to domestic agriculture. However, the effectiveness of P.L. 480 programs as development assistance efforts is being reexamined. Security and support assistance has a strong constituency in Congress, especially since this Administration has established a demonstrable link between such assistance and issues of peace and self-protection. Nevertheless, small ad hoc supporting assistance programs have been criticized. There is also some concern about the long-term social and economic impact of large security and supporting assistance programs in those countries where they will be used for extended periods.

In the congressional view, U.N. agencies suffer to some extent from the belief that their efforts place more emphasis on satisfying the financial desires of a broad Third World constituency than on program content and effectiveness. Similarly, some members of Congress dislike their inability to exercise strong control over international financial institutions (IFIs), while others criticize the insufficient focus on basic human needs programs. Neither the United Nations nor the banks accept earmarking of U.S. funds for certain countries, a practice for which Congress has a strong penchant. Both U.N. agencies and IFIs regard responsiveness to the larger world community as a virtue, as do some congressional supporters.

There appears to be considerable congressional support for international health activities that benefit the health of U.S. citizens or contribute to international scientific and professional cooperation. Similarly there appears to be a major potential for both congressional and public support for an expanded role in the private sector in health diplomacy.

Conclusions About International Relations and Health Diplomacy

We reiterate that international health must play a strong role in the basic human needs strategy of U.S. foreign policy. We can increase the humanitarian potential of U.S. international health activities through diplomatic relations with other countries. Greater U.S. awareness of these conclusions and wider acceptance of their implications will provide a stronger foundation for us to fulfill our part of the world's responsibility for improved health for all, especially the poorest fourth of the earth's population.

To address questions of international health effectively, the United States must first strengthen the means by which its several government agencies relate with respect to international health matters, and then join their separate missions and activities in this area. All this must be accomplished in a way which supports and is supported in turn by activities of the U.S. private sector, other donor countries, and multilateral and voluntary organizations. We advocate a governmentwide policy on international health, mechanisms for policy and strategic level coordination, and the development and promotion of new initiatives.

Policy. Although many separate international health policies exist within and among individual agencies, the absence of a governmentwide policy on the subject constrains full U.S. effectiveness which can ensure that greater humanitarian benefit will be derived from international health activities. Indeed, if international health activity is to profit from opportunities arising in the context of this country's conduct of international relations, an explicit policy detailing the nature of the relationship between international health and international relations must be developed, understood, and implemented by all – not only those responsible for international health but those responsible for international relations as well. This policy must stress U.S. concern for basic health needs at the highest level of government and should complement the President's human rights policy, demonstrating real and effective concern for the health of people everywhere. It would serve as a model for changes in foreign policy decision making in the areas of economic and social development. It would address and seek to improve the health of U.S. citizens. And naturally, it would support and should be supported by international economic and commercial policy.

A governmentwide international health policy would also establish more direct guidance for U.S. relationships with multilateral agencies and international financial institutions. It would support a logical relationship between international health and international relations that simultaneously improves relations between countries and increases humanitarian benefits to health. It must recognize differences among nations and be flexible enough to adapt to related U.S. activity. Finally, it would include the capacity to deal with global health systems problems.

Coordinating Mechanisms. Of the 22 agencies engaged in international activities, the concentration of this activity is greatest in the following:

- HEW (primarily for the benefit of U.S. citizens and for the advancement of health sciences knowledge);
- AID (primarily for development, and securities and supporting assistance to selected developing countries);
- State (for purposes of improving our international relations);
- Treasury and Commerce (for financial and commercial objectives);
- Various agencies for mission-related objectives:
  - Defense (security and readiness);
  - Agriculture (food policy);
  - Peace Corps (PC) (humanitarian assistance).

Currently there are no means by which these agencies can relate and strengthen their separate purposes and potential contributions to the benefit of overall government goals set forth by the President.

Before a governmentwide policy can be established, kept current, and its implementation managed, the problem of divided responsibility and authority among the largest agencies will have to be overcome. The majority of U.S. international health funds, technical resources, and formal policy-making authority has been concentrated in AID, HEW, and State without any one of these agencies having an effective combination of all these elements. Treasury, Peace Corps, NASA, DOD, Commerce, Central Intelligence Agency (CIA), Veterans Administration (VA), Environmental Protection Agency (EPA), and others all engage in some international health activities but their decisions to do so do not reflect governmentwide coordination or policy. Among the agencies themselves, there is general agreement that a coordinating mechanism or mechanisms should be established.

An interagency coordinating mechanism would be responsible for U.S. Government international health policy, its planning, and its evolution. It would establish the governmentwide goals and principles for agencies to use in designing their international health programs. It would also resolve any impasse from the strategic level of coordination. Finally, it would publish and send to the President and Congress an annual report on international health; and it would convene an annual conference on international health to invite public response to its policy and reporting functions. Support for these functions would be provided by staff of the Executive Branch.

The strategy level for interagency program coordination would be responsible for U.S. Government international health strategy, its planning, and execution. It would seek to relate the goals and activities of international health programs throughout government. It would be the focal point for international health initiatives coming from on-going government programs, from a new program to be called the Global Health Cadre, from the U.S. private sector, or from foreign countries or international organizations. It would serve as an information base on relevant government and nongovernment international health activity. Support for these functions would be provided by the same Executive Branch staff serving at the policy level.

Development and Promotion of International Health Initiatives. International health initiatives originate in many ways, in many places, and for many purposes. These programs and projects are concerned with aspects of foreign policy, medical diplomacy, development and supporting assistance, global health problems (including those affecting the health of U.S. citizens or involving professional and scientific exchange), and U.S. commerce and finance. No systematic means exist for developing and introducing such initiatives throughout the government; nor are there mechanisms to ensure an integrated government strategy to implement international health initiatives.

To develop and promote international health initiatives presumes the capacity to identify needs or opportunities for assistance or collaboration in other countries, to advance these objectives within U.S. and host-country governments, to design and select appropriate projects, and to allocate responsibility for implementation among the many U.S. agencies involved in international health. Those responsible for these initiatives must demonstrate a balance of knowledge on foreign policy and foreign relations, foreign aid and development assistance, health and health-related technical matters, and a variety of other aspects such as foreign trade, science and technology, and various diplomatic factors.

Personnel with such an amalgam of expertise are not presently found in government. We recommend that the Department of State create an appropriate organizational structure for international health matters and recruit personnel with the necessary capabilities to staff it. Among other responsibilities, this unit could administer a Global Health Cadre.

Members of the Global Health Cadre would be located in U.S. foreign missions to advise and assist in the promotion and coordination of initiatives relating to the health component of basic human needs issues and policies. This cadre would also serve as U.S. Government health representatives abroad. The majority of the 40 to 50 members of the cadre would be located in non-AID developing countries.

The cadre would be selected from or appointed to career or term positions in the various services of the U.S. Government personnel system. To the extent appropriate, these positions would be used as career development experiences in international health within these several services.

We also see the need for a focal point in the State Department (in Treasury, Commerce, and in other agencies as well) where the relationship between international health and international relations can be clarified and strengthened. Especially because of State's role as manager of all U.S. international relations, including international health activities involving other countries or their citizens, we think State should have a point of liaison for all of its activity regarding international health. Such activity may consist of representation of international health during formulation and conduct of foreign policy and vice versa; development, promotion, and management (but not necessarily conduct) of international health initiatives taken primarily to improve U.S. relations with other countries; leadership in major agreements with other countries on transnational health problems with the environment, safety of goods, or services in trade, and so on; and service as a neutral broker, relating all government aspects of health with U.S. international policies in other fields of interest. (We recognize that State is currently investigating appropriate ways to meet responsibilities such as those outlined above.) For this operation, State will have to upgrade its organizational capacity and staff in international health. As we have already said, State could take a step toward this goal by creating an organizational unit for international health. The executive staff for the coordinating mechanisms for international health could be assigned to the appropriate State unit for international health, as could the administrative and program responsibilities for the Global Health Cadre. This arrangement would also be supportive of State missions related to international health and could provide the basis for State's active backing and promotion of international health activities.

As we studied U.S. international relations and international health, we found over and over again that many of the policy gaps and organization, management, and personnel problems associated with our involvement in international health are similar to our experiences with other international human needs concerns, such as food and nutrition, and education. A strong science and technology orientation is required to buttress policy decisions in these areas. We urge that many of our findings in international health and health-related areas be examined in terms of the capacity of the Federal Government to effectively develop and promote international human needs policies and programs, as well as alternative approaches to augmenting its professional resources in the international health field.

Chapter 2: Appendix

International Health Organizations and Financial Institutions

African Development Fund (AFDF). The AFDF 1976 lending program was $65 million, of which $8 million was appropriated for three health loans and $33 million for potable-water projects.

Asian Development Bank (ADB) and Asian Development Fund (ADF). In 1976, ADB and ADF expenditures totaled $776 million, of which $122 million can be interpreted as involving water improvement (potable-water and sewerage) projects related to health.

Developmental Assistance Committee (DAC). In 1975, the most recent year for which data are available, the 17 nations of the Development Assistance Committee of the OECD and the Economic Development Fund of the Common Market reported $593 million spent for health development assistance and $244 million for water supply and sewerage assistance. Besides water and sanitation, major activities included programs in population control, communicable disease control, hospitals and clinics, mother and child care, nutrition, research, manpower development, and medical supplies. A consensus is building among DAC members that coordination in DAC should go beyond merely reporting individual donors' activities. This forum may be useful in coordinating international health activities.

Food and Agriculture Organization (FAO). Largely with financing from the U.N. Development Program, FAO carries out agricultural, fisheries, and forestry programs in most developing countries. FAO has been deeply involved in the Sahel recovery plan. The organization has had considerable experience as the executive agency for donor institutions. The United States has substantial influence in the FAO Council.

Inter-American Development Bank (IDB). The Bank recently adopted a policy of investing in the expansion of health services in hitherto unserved areas of borrowing countries (such as Costa Rica, Guatemala, and Haiti), provided the money is used for integrated regional schemes. So far, about $120 million has been earmarked for such purposes.

International Bank for Reconstruction and Development (IBRD). IBRD has assumed the role of fund manager in a major multi-organizational (WHO, UNDP, AID, FAO, and so on) program to fight onchocerciasis (river blindness) in West Africa, thereby opening great areas to agriculture. The World Bank Group will probably play a similar role in WHO's new tropical disease research program. IBRD also administers programs in water supply and sewerage, family planning, maternal and child health, and nutrition. The most important role for the Bank in this field is as coordinator and organizer of consortia for large-scale assistance, especially projects requiring concomitant policy reforms by the recipient country. The Bank presently seeks by its lending activities to influence country economic policies; there is some feeling within the Federal Government that the Bank should do this more forcefully.

United Nations Children's Fund (UNICEF). Sixty-four percent of UNICEF's 1976 expenditures for health and nutrition programs went for maternal and child health, clean water supply, child feeding and weaning, food production, and similar activities. WHO is the chief executive agency for UNICEF in these areas, although UNICEF also works closely with FAO and UNDP. U.S. voluntary contributions to UNICEF – currently almost 20 percent – make us the major donor. The United States is a leading member of the 30-nation Executive Board.

United Nations Development Program (UNDP). In 1976 UNDP's own project expenditures for health totaled only $4 million, but UNDP financed $18 million in WHO projects. A further $38 million went to UNESCO and $101 million to FAO, but only part of these sums went for nutrition, sanitation, and health. Specific projects and priorities are chosen by the recipient countries rather than by the donors.

United Nations Environment Program (UNEP). Voluntary contributions (40 percent from the United States) go into catalyzing and supporting UNEP's (nonoperational) environmental activities. UNEP gives priority to human health and human settlements. The United States is a member of the 58-nation Governing Council.

United Nations Fund for Population Activities (UNFPA). The Fund operates primarily through the United Nations and its specialized agencies, although projects increasingly are being managed by host countries. As the principal contributor, the United States has considerable influence on UNFPA.

United Nations Relief and Works Agency (UNRWA). The Agency aids Palestinian refugees in education and vocational training, health services, food rations, and housing. As a principal supporter of UNRWA, the United States has great influence.

World Food Program (WFP). The UN/FAO World Food Program is the principal multilateral food aid program. WFP's resources (25 percent of which are furnished by the United States) go for food-for-work projects, food for especially vulnerable groups (children and the aged), and coping with emergencies (famine caused by drought).

Chapter 3

Health of U.S. Citizens

The United States must demonstrate its concern about improving the health of people everywhere through practical, effective steps. No strategy will be credible to other countries or acceptable to the people of the United States unless it is fully integrated with a strategy to improve health in the United States. For this reason, domestic health goals are fundamental to international health policy: The United States should protect the health of its citizens.

International health activities can contribute significantly to the health of U.S. citizens here and abroad and to the body of U.S. scientific knowledge on health and human well-being. The health and nutritional status of the U.S. population can be improved through a variety of means. Specifically, we should concentrate on increasing life expectancy at birth, decreasing infant mortality, and decreasing the leading causes of mortality – heart disease, cancer, cerebrovascular disease, and accidents. High-quality, affordable health services must be accessible to all: Social and economic programs can be instrumental in reducing ill health in disadvantaged and high-risk populations. Preventive and health education programs must be developed to reduce the prevalence of disease and improve the use of health services. Appropriate resources such as health manpower, science and technology, financing, materiel, and facilities should be made available to meet health service needs.

The United States is moving into a period of revolutionary change in financing and organization of health services, and the Federal Government must guide these changes to help ensure the equity, efficiency, and effectiveness of health care. The Federal Government also can play a key role in strengthening preventive health services. International health activities should play an integral part in these efforts; our international health strategy must include international health activities undertaken for the self-interest of the United States.

Although health status patterns in the United States are typical of those in other developed countries, the United States has not been sufficiently successful in improving the health of its citizens. Eighteen countries have higher male life expectancy at birth and 6 have higher female life expectancy; 14 countries have a lower infant mortality rate. A striking disparity exists between the health conditions of minorities and the general population in the United States, explaining the relatively higher mortality rates observed among poor and minority populations. The physical conditions of rural, minority, and low-income urban Americans may be quite different than those of the "average" American. For example, Black American children have four times the percentage of deficient plasma vitamin A values as those recorded in Whites (Center for Disease Control, 1972).

Thus, in spite of its superb medical technology and huge investment in health, the United States is not adequately meeting the health needs of its citizens. Although the United States plays a much more important role in health in the world than the size of our population would suggest, the very mass of health professionals and health experience outside the United States implies that we have much to learn from abroad. In the past, this nation has been very adept at learning lessons in health from foreign countries and citizens through a large program of international activities.

Sharp increases in health service expenditures (see Figures 4 and 5) in the past 25 years in the United States provide cause for reexamination of international health policy. Currently, the health care industry is the third largest in the United States, exceeded only by the construction industry and agriculture. The rapid rise in health care expenditures has created a marked concern for finding new, improved, less costly ways to meet the health needs and demands of the U.S. people. Some European countries appear to have had more rapid increases in health expenditures than the United States; in other developed countries, the gain has been less rapid. While no simple lesson can be learned from these data, we may infer that exploring the diversity of experience among countries with similarly strong interests in health should prove fruitful.

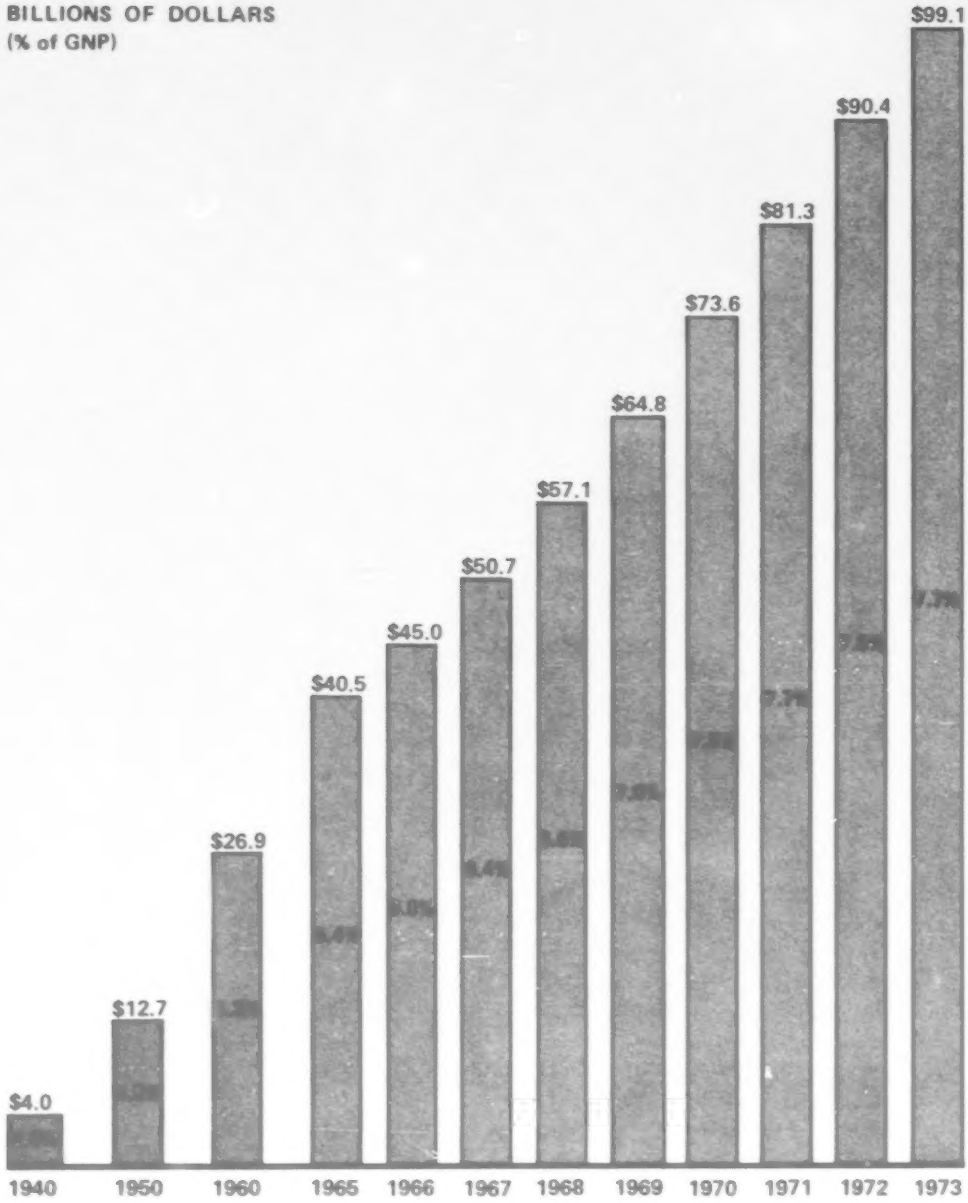
Federal Involvement in Domestically Related International Health

International activities represent a relatively small part of the Federal health programs oriented toward domestic needs. However, complexity of the situation inhibits attempts to specify domestic health goals that can be achieved through international activities.

The health budgets of the 14 Departments which fund health programs totaled $51,432 million in FY 1977 (see Table 1). Not surprisingly, agency involvement in international health for domestic purposes is similarly complex. Figure 6 shows the principal agency international health activity which contributes to the health of U.S. citizens.

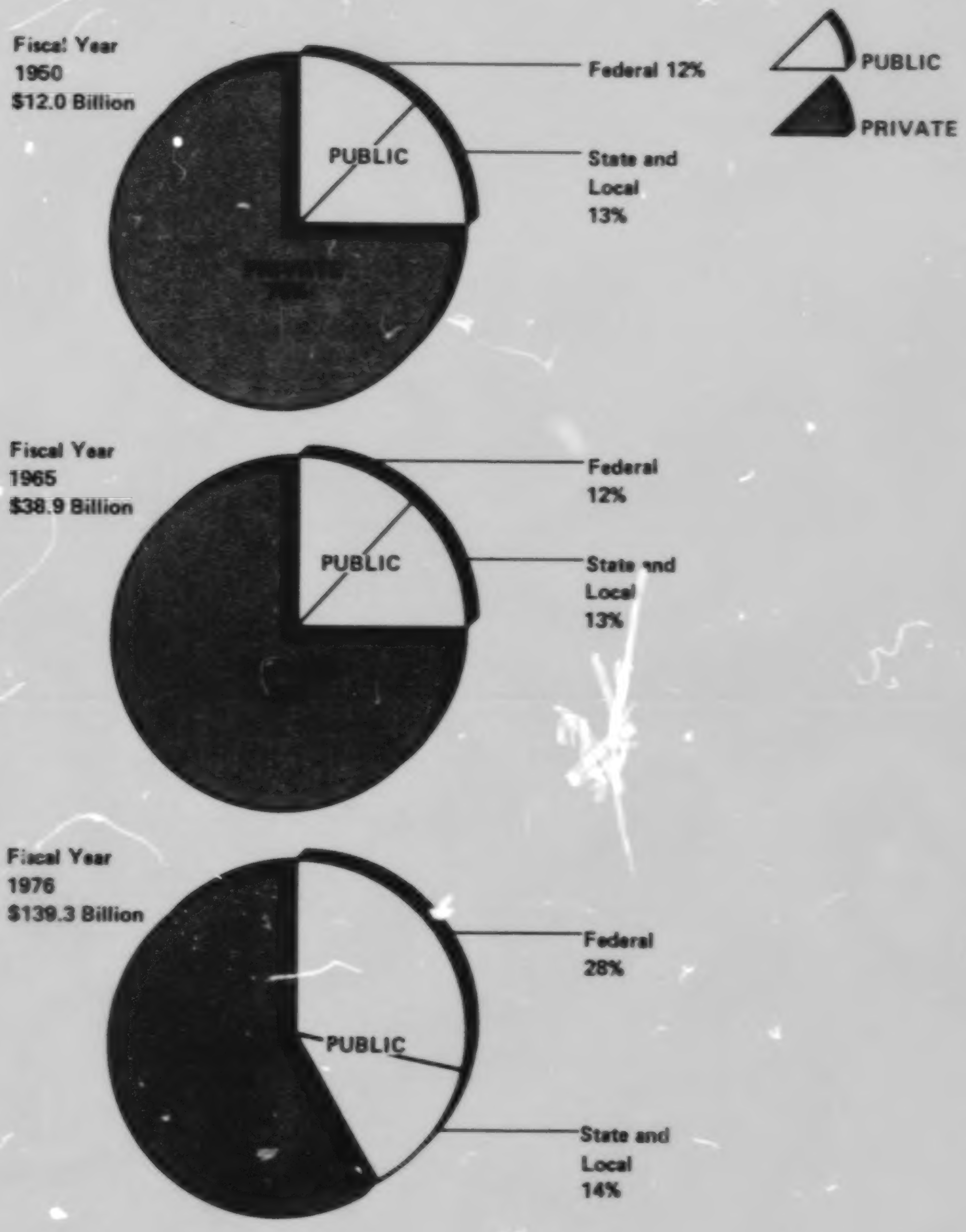
The Department of Health, Education, and Welfare. The Department of Health, Education, and Welfare has clear lead responsibility for domestic health and therefore for international health activities undertaken for domestic health purposes. HEW's international health expenditures in FY 1976 were $39.3 million (0.1 percent of its health budget). The major health responsibility of HEW is in turn delegated to the Health Care Financing Administration (HCFA) and the Public Health Service. International health expenditures for FY 1976 for each of the PHS components listed on page 71 are given in parentheses.

Figure 4. Total and Percent of Gross National Product Spent on Health for Calendar Years 1940-73



Source: Social Security Administration, ORS, February 19, 1975. Research and Statistics Notes, No. 1. (SSA Publication No. 75-11701).

Figure 5. Public and Private Health Expenditures for Fiscal Years 1950, 1965, and 1976



Source: Special Analyses Budget of the United States Government – Fiscal Year 1978.

Table 1. Federal Outlays for Medical and Health-Related Activities by Agency, 1977 (in Millions of Dollars)

	Functional code	Health research	Training and education	Construction	Health planning activities	Direct Federal hospital and medical services	Indirect Federal hospital and medical services	Prevention and control of health problems	Total
Department of Health, Education, and Welfare (total)	550	2,407	720	531	297	315	33,615	796	38,681
Health Services Administration	551	12	42	66	9	250	911	245	1,535
Health Resources Administration	560	36	386	372	250	...	4	1	1,049
Alcohol, Drug Abuse, and Mental Health Administration	550	139	69	22	8	61	418	102	819
Center for Disease Control	553	76	4	...	...	...	...	144	224
National Institutes of Health	550	1,929	155	65	...	...	...	29	2,178
Food and Drug Administration	553	24	...	3	...	...	...	213	240
Assistant Secretary for Health	550	8	...	1	26	3	21	4	63
Social Security Administration	551	11	...	...	...	...	21,762	...	21,773
Social and Rehabilitation Service	551	2	...	...	...	1	10,265	...	10,268
Other HEW	550	170	64	2	4	*	234	58	532
Department of Defense	051	126	274	331	*	2,501	599	57	3,888
Veterans Administration	703	105	291	293	23	3,804	325	...	4,841
Department of Housing and Urban Development	451	...	...	385	1	...	37	*	423
Department of Agriculture	352	65	...	23	...	...	...	320	408
Environmental Protection Agency	304	56	...	...	...	...	...	...	56
National Aeronautics and Space Administration	259	77	...	...	...	...	...	5	82
Energy Research and Development Administration	251	305	1	19	*	...	...	109	434
Department of Labor	550	5	19	...	*	...	...	102	126
Department of State	150	3	10	*	2	*	16	31	62
National Science Foundation	251	49	...	...	...	...	...	*	49
Department of the Interior	300	40	12	1	...	...	12	93	158
Department of Transportation	400	6	2	3	11	22	...	17	61
Department of Justice	750	2	...	2	1	30	3	21	59
Other agencies		55	24	23	19	14	79	130	344
Agency contributions to employee health funds	551	...	...	...	...	...	1,757	1	1,758
Total outlays for health, 1977	...	3,301	1,353	1,611	354	6,686	36,443	1,682	51,430

Note: An asterisk denotes expenditures of less than $1 million.

Figure 6. Federal Agencies Responsible for Health Protection of U.S. Citizens

Agency for International Development

- American Schools and Hospitals Abroad
- Disease Prevention and Control

Agriculture

- Improved Agricultural Research

Commerce

- Standards Development and Applied Technology

Health, Education, and Welfare

- Health Services Research
- Cooperative Research Through NIH; NCI; NHLBI; NIAID; NICHD; NIEHS
- International Organization Policy Development (OIH)
- Epidemiological Intelligence (CDC)
- Disease Prevention and Control (CDC)
- Intramural Research (FDA)
- Inspection of Foreign Firms Products (FDA)
- Monitoring of Adverse Drug Reactions (FDA)
- Research on the Prevention and Control of Mental Illness and Drug Abuse
- Research on Ethnicity, Mental Health, and Social Welfare
- International Health Representatives Committee
- Integration of Domestic and International Activities

Defense

- Provision of Health Services to DOD Eligible Beneficiaries

Interior (Trust Territories)

- Manpower Training
- Disease Prevention and Control
- Hospital Renovation
- Organizing Medical Services

Panama Canal Company

- Delivery of Health Services to Eligible Populations in the Canal Zone
- Environmental Health Services
- Disease Control Services

Veterans Administration

- Financing of Inpatient and Outpatient Services for U.S. Veterans Abroad

Environmental Protection Agency

- Environmental Policy Department
- Educational and Cultural Exchange

State

- Management of Bilateral Science and Technology Cooperative Research Agreements
- Administration of Emergency Medical Treatment for U.S. Citizens Traveling Abroad
- Medical Services to AID, State, and USIA Employees

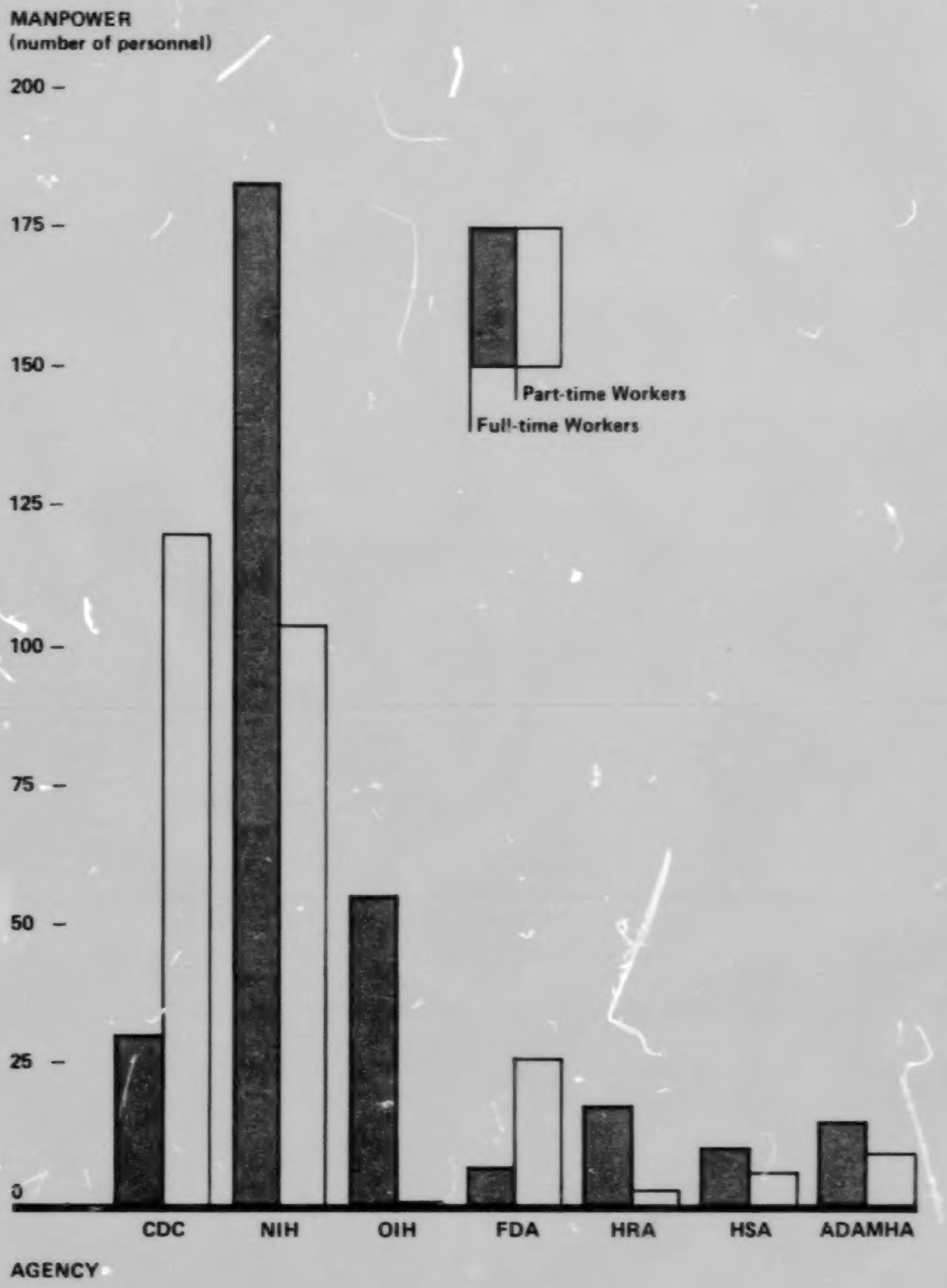
Note: All international health activities of U.S. agencies, especially research programs contribute potentially to health of U.S. citizens. Those listed here contribute most directly.

- *Office of the Assistant Secretary for Health (Office of International Health – OIH)* – International health coordination and policy determination for PHS ($2.1 million), and international projects in the Office of Policy, Research, and Statistics (approximately $3 million);
- *The Center for Disease Control (CDC)* – Epidemiological surveillance, disease prevention and control, research and collaboration, and support of international laboratories ($5.2 million);
- *The Food and Drug Administration (FDA)* – Research, inspection of foreign firms, and monitoring adverse drug reactions ($1.6 million);
- *The Health Resources Administration (HRA)* – Research and training and collection of international health statistics (approximately $0.6 million);
- *The Health Services Administration (HSA)* – Research ($2.2 million);
- *The National Institutes of Health (NIH)* – International activities spanning the entire range of functions of its constituent research institutes ($19.9 million);
- *The Alcohol, Drug Abuse, and Mental Health Administration (ADAMHA)* – International research;
- *The Office of Human Development* – Some international health activities.

The lack of explicit policies for the use of international health activities in support of domestic health programs and policies has been detrimental to the efficiency and coordination of these programs.

Figure 7 shows the results of a recent survey of PHS manpower devoted to international activities. There has been some question as to the accuracy of the data, however. According to the study, 321 full-time employees and another 280.6 full-time equivalents were involved. Although a portion of this staff provides services to other agencies, the majority are involved in international health for domestic purposes. This number of employees, which is generally believed to have been reduced from levels of the late 1960s, represents approximately 1.2 percent of the health program employees of HEW.

Figure 7. Current Levels of PHS Manpower Engaged in International Activities



No consistent, coherent program is in effect to accurately handle existing data on international health activities undertaken for domestic health purposes. Currently, no single management information system exists to which a responsible government project official can turn for data such as sites for projects, counterpart institutions and personnel, staffing with international and substantive qualifications, and budgetary sources. The budget for international health activities for domestic purposes has been kept by OIH. Consequently, no trend information can be obtained. Again it appears that the adequacy of budget cannot be assessed without reference to the need to tap data presently unavailable on what is to be done.

Given the repeated direct and indirect criticisms of management capacity in international health (Milch, August 1968; Quimby, May 1971), the lack of management improvement in HEW's program is particularly disturbing. Overall responsibility for management lies in the Office of the Assistant Secretary of OIH. However, specific international health offices or internationally concerned administrative units in the agencies of the Public Health Service are not responsible to OIH. Thus, effective coordination of international activities in the line bureaus of the agencies is difficult at best.

The Department of Defense. DOD is primarily involved in international health analysis, training, and research to protect the health of U.S. military personnel stationed abroad. DOD operates approximately 45 hospitals and 100 clinics and dispensaries outside the United States. Operations of DOD's overseas medical services, which are almost exclusively used by U.S. Government personnel and their dependents, are estimated at some $625 million per year. Except in emergencies, DOD cannot provide care to noneligible beneficiaries. Less than 40 percent of the constructed bed capacity is being staffed and operated; this results in 3,000 beds being unused.

DOD is experiencing great difficulty in meeting its allotments of authorized physicians, and DOD facilities can only be utilized by nonactive duty beneficiaries on a space-available basis. In some regions of the world, current interpretation of this restriction severely limits the amount and type of care available because DOD facilities are sized in relation to active duty requirements. In Iran in 1975, for example, the estimated number of retired Uniformed Service Personnel and their dependents exceeded significantly the number of active duty personnel and dependents (Office of the Assistant Secretary of Defense for Health Affairs, September 1975). Thus, eligible DOD beneficiaries may be unable to receive care in a U.S. facility. This situation is exacerbated in periods when the United States must deploy military medical units to assist in disasters or perform other relief missions.

Other Agencies. A complex network of other government agencies is involved in international scientific and professional cooperation in the biomedical area.

- *Office of Science and Technology Policy in the Executive Office of the President* – Policy analysis and advice (approximately $1.4 million);

- *National Science Foundation* – Improve research and education in the sciences ($5.0 million);

- *National Academy of Sciences* (a quasi-governmental agency) – Various reviews and policy studies related to international health;

- *Environmental Protection Agency* – International health research ($2.9 million);

- *Energy Research and Development Administration (ERDA)* – International health research ($6.6 million);

- *Department of Agriculture* – International health research ($1.5 million).

In addition, USIA and the Department of Labor sponsor programs to foster international communication on health topics. DOD operates eight centers for the study of tropical diseases, and HEW administers seven other centers (see Chapter 6). A very extensive system of binational science and technology agreements either focuses specifically on health or includes some aspects of health within the overall scope of concern. The principal U.S. agencies involved are HEW (U.S.S.R., Egypt); EPA (Canada, Egypt, Federal Republic of Germany, Japan, Poland, U.S.S.R., and Yugoslavia); Department of Interior (Canada, Poland, and the United Kingdom); NASA (U.S.S.R.); NSF (Argentina, Australia, Brazil, Republic of China, Egypt, France, Hungary, India, Iran, Italy, Japan, Mexico, New Zealand, Poland, Romania, Saudia Arabia, and U.S.S.R.); and Department of Transportation (DOT) (transportation safety with Israel, Japan, Poland, and the United Kingdom).

The Department of the Interior also has significant health expenditures ($13.6 million in FY 1976 for services in the trust territories). Finally, the Canal Zone Government spent $25.8 million to deliver health services in the Canal Zone to U.S. military and government personnel and certain authorized Panamanians.

The Veterans Administration has special responsibility for provision of health care to Philippine war veterans. Perhaps more importantly, the VA provides an extensive program of education in clinical services involving approximately 7,000 medical residencies per year, as well as training in many other health professions. This program includes approximately 1,000 foreign medical graduates per year. The governmental health delivery system in the United States (including the VA, DOD and PHS) is a major vehicle for in-service training of foreign personnel and a major employer of immigrant health personnel.

Importantly, these data and the data included in the appendixes have never before been compiled. At a minimum, this information should be compiled and reevaluated annually to assist executive and congressional planners in evaluating health programs throughout the Federal Government.

Aspects of International Involvement in U.S. Health Services

The U.S. health sector has grown rapidly in recent years. This Administration is committed to making the fundamental reforms in orientation, financing, and organization required by that growth. These reforms call for the fullest use of international health tools, including obtaining useful knowledge from the experience of other countries, assuring that changes in the United States are not detrimental to other countries' interests, and working with other countries to better the health of all.

To be fully effective in improving the health of U.S. citizens, international health activities must be integrated into the overall program of the U.S. Government. Therefore, attention must be devoted specifically to international aspects of key U.S. health policy issues: access to health services, quality and efficiency of U.S. health services, and strengthening of preventive services.

Access to Health Services

This Administration intends to increase access to health care for all Americans, especially rural Americans, inner-city minority citizens, and the disadvantaged and handicapped. International health activities relate to this objective in at least three ways. First, involvement in international health assistance programs such as the Peace Corps appears to have strongly motivated many U.S. health workers to change career patterns in order to participate in programs oriented to disadvantaged domestic populations. Second, concern for the development of health services for rural and disadvantaged urban populations is shared by many countries. Candid exchanges of information and experience should help the United States to carry out its objectives more correctly and efficiently. Third, to ensure economic access to health care for all Americans, this Administration is committed to the creation of a *national health insurance* program. Development of legislation for this purpose involves several international concerns.

Coverage. Nearly 40 million U.S. citizens travel abroad annually, and over 7.2 million U.S. citizens now reside abroad. Overseas health services for these citizens will involve significant expenditures. Alternatives include direct reimbursement and reciprocal financing agreements with other countries having national health insurance schemes.

The Helsinki Agreement calls for international migrant workers to have the same rights as host country nationals with regard to conditions of employment and social security. Currently, some 5 million foreign nationals legally reside in the United States. Seventeen and one-half million visit here annually, and 4 to 12 million reside here illegally. Thus, we should include international concerns directly in any planning for U.S. national health insurance.

101

Financing. Many developed and developing countries have had significant experience with national financing of health services for large populations. Moreover, the problems encountered with increasing demand for health services, third-party financing, and cost inflation are similar in many countries. Consideration should be given to a formal, multi-national collaborative program analyzing health cost financing, perhaps implemented through WHO.

What Can Be Learned From Other Nations

Appreciation of the considerable U.S. accomplishments in the field of health should not cloud our realization that there are more health professionals, more clinical practices and research, and more biomedical research found outside the United States than inside. Consequently, maintaining the quality of U.S. medical practice at the highest level of international standards requires the continuing transfer of knowledge and technology to the United States.

Different countries have developed different health care delivery systems. While many of these systems share the same high standards of medical care, they do so through widely varying processes. Health services research analyzes the organization of these systems and the functioning of these processes. Development of coherent theories of health services delivery based on an organized body of data would provide a foundation for a systematic approach to the design of efficient, effective health maintenance organizations and health systems agencies. HEW, working through WHO and other international agencies, should seek to foster such international health services research.

Although facing apparently similar morbidity patterns, each developed country exhibits dissimilar patterns of diagnosis and treatment of diseases (Bunker, 1970, pp. 135-144; Conover, 1972, pp. 167-180). Clinical case control studies are the obvious route to selecting the most conservative course of treatment consistent with patient welfare. A strong program of such studies would therefore be useful in providing knowledge to reduce medical costs. However, on the basis of perceived ethics, both lay and professional communities will probably oppose trials that test long-accepted clinical procedures against new, more conservative alternatives. Cross-comparison studies of accepted clinical practices, although administratively difficult to arrange, do not suffer from this problem.

Some health conditions are relatively rare in any given country. Economically it would be expedient if those countries with these existing problems could share pertinent research results and knowledge. For example, estimates indicate that 1 percent of U.S. medical costs may be related to treatment of iatrogenic disease. International cooperation in the development of information on adverse drug effects and other such problems may be quite useful in reducing these costs.

Our minority populations may exhibit genetically determined differences in response to specific drugs or to other medical interventions. Clinical and pharmacological research seeks to test innovations on a cross section of the population. Drug or treatment ineffectiveness or adverse reactions related to the health, nutrition, or genetic conditions of minority populations may not be apparent because of low representation of these minorities in U.S. cross-sectional samples. Thus, international collaboration with countries to which such genetic groups are indigenous will benefit the poor in our own population.

The major impact of international activities on containment of health services costs may well come from scientific and professional cooperation. Research and development expenditures are significant components of health care costs. A greatly expanded export market in pharmaceuticals allows reduction of domestic expenditures, since research and development costs are amortized over both domestic and foreign purchasers. Participation in collaborative biomedical research by a strong international community may thereby reduce such costs for each nation.

Preventive Health Services and International Health Activities

To some degree, international experience can be meaningful to domestic preventive medicine programs. These programs should focus on immunization; on reduction of smoking, alcoholism, obesity, drug abuse, and accidents; on improved nutrition; on promoting patterns of childbearing that are not injurious to health; and on reduction of environmental hazards to health.

New methods of implementing programs and influencing consumer behavior, for example, can be the subject of international exchanges. International research and development on improved vaccines, medicines, and methods of health promotion and disease prevention; international planning; research on the impact of various environmental and social factors on health; and so forth, will provide valuable tools to domestic preventive medicine programs.

Historically, there are well-established activities in international health which have a direct bearing on prevention of disease. Some 40 million people per year cross U.S. boundaries. International travelers are potential carriers of disease, and are exposed to unfamiliar health conditions and to diseases to which they have not developed immunity. The United States has traditionally required immunization for travelers from areas of endemic communicable diseases, and relied on containment of outbreaks of imported diseases. This posture appears appropriate, although American public health officials must maintain their expertise in both containment methods and communicable disease processes.

Health education and preventive medical services received by government employees traveling abroad are generally excellent. Preventive services furnished to Peace Corps volunteers are especially noteworthy. DOD not only provides excellent preventive services for military personnel assigned overseas, but has a distinguished history of research and development of new preventive methods of tropical disease. We emphasize the importance of these efforts and the need for maintenance of high-quality services.

Millions of U.S. citizens travel each year to tropical regions and poor countries having a high prevalence of disease. Moreover, this volume of travel is increasing rapidly. We must inform such travelers about disease hazards and means of reducing them; we must recommend appropriate immunization and make it available to those who need it. Federal offices, travel agencies, airlines, and overseas missions should be in a position to provide U.S. citizens traveling abroad with written information on appropriate preventive methods and medical referral services.

Disease control and surveillance abroad are also important in the prevention of domestic disease. The worldwide campaign to eradicate smallpox, for example, has so reduced the threat of importation of that disease that the United States has been able to discontinue mass vaccination programs. The Director of HEW's Center for Disease Control has pointed out that in the 1960s over $140 million was spent annually to maintain a smallpox-free status in the United States. The total U.S. commitment to the world program to eradicate smallpox was approximately $25 million. The savings from halting our national smallpox effort recoups this amount every few months and will do so forever.

The border health program, carried out by joint agreement between the United States and Mexico, through the cooperation of the Pan American Health Organization, also has afforded significant benefits in terms of rabies control and reduction of other communicable diseases along the length of the Mexican border.

We must study international action for controlling certain diseases such as hoof-and-mouth disease and yellow fever. These diseases pose particular health threats and have serious economic impact as well. Epidemiological surveillance of all diseases which are potential threats to the United States should be strengthened. Knowledge of the distribution of disease is important for protecting U.S. citizens abroad and for blocking the importation of disease. Such actions can occur through both direct U.S. and cooperative international action. The United States should, therefore, encourage WHO to take steps to improve and expand the international system of epidemiological surveillance. We should provide needed technical and financial assistance to developing countries for this purpose. The special institutional capacities of CDC, AID, and DOD should be used for this purpose. In addition, full use should be made of all other domestic and international resources.

Naturally occurring toxins, pesticide and drug residues, industrial pollutants, microbiological contamination, and contamination by rodents and insects threaten the great quantities of food imported by the United States. At present dockside inspections and, to a lesser extent, onsite visits to food processing plants overseas require substantial expenditures. Through bilateral agreements, some countries permit inspections and provide assistance to the food processor in upgrading techniques. Exchange of technical information and transfer of food processing technology reduce the delays often encountered in obtaining clearances for the importation of food and, hence, forestall spoilage and waste.

Improving food processing and storage at its source will benefit the citizens of the exporting country (as well as U.S. citizens residing in or traveling through it); we can thereby assure our own population that imported foods are wholesome and safe. There is merit in improving international pesticide tolerances through the development and acceptance of international standards.

Although imported pharmaceuticals do not constitute a major part of the U.S. domestic supply, we are interested in their manufacture, because U.S. citizens abroad may receive them. Sometimes the drugs manufactured in other countries are ineffective, unsafe, or impure. In some countries, most pharmaceuticals are readily available without prescription. Unsupervised self-medication and use of partially ineffective drugs can result in the development of antibiotic-resistant pathogenic organisms. The United States should support the WHO program to assist developing countries in the formulation of appropriate drug policies and procedures.

The Food and Drug Administration should meet these international needs, benefiting the United States directly, particularly to help ensure the high quality of chemicals imported to manufacture drugs in the United States. The United States should also participate actively in the free exchange of information through the International Poison Control Center.

We must establish safeguards against importation of such health hazards as toys coated with lead-based paints, or electronic equipment emitting radiation at a dangerously high level.

Finally, the United States should take cooperative actions to avoid worldwide environmental problems that may affect the health of U.S. citizens. More and more countries look to WHO and UNEP for guidance in protection against environmental contamination. Air quality guides, recommended drinking water standards, and environmental health criteria should all be disseminated to developing and developed countries. The United States has been a major contributor to the creation of these standards and should actively continue to support their preparation.

In addition, we could improve the quality of foodstuffs consumed by all people abroad by stepping up our participation in the joint FAO/WHO Codex Alimentarious Committee on Pesticide Residues, which develops and recommends international tolerance levels to 100 member countries. (Diplomatic approaches to improve health by dealing with global systems problems are discussed in Chapter 2.)

Scientific and Professional Cooperation

Many benefits accrue to the United States from international scientific and professional cooperation. A recent survey (Huddle, 1975) cited about 200 specific instances in which international cooperative research provided U.S. health gains. Two examples are:

1. About 1 million Americans suffer from Parkinson's disease. Treatment was largely ineffective until 1967, when the combined efforts of Austrian, Canadian, Chilean, Swiss, Swedish, and American scientists created L-dopa, a drug permitting effective treatment of this crippling neurological disorder;

2. Polish researchers, supported by HEW, developed new procedures for fitting prosthetic devices to amputees immediately after surgery. This shortened the long, painful process of recovery for more than 75,000 Americans, allowing them to return to productive pursuits 8 months sooner than previously possible (Huddle, 1975).

Obviously much transfer of medical knowledge and technology occurs through international publication and distribution of technical literature. The role of direct personal contact should not be underestimated. The 100,000 foreign medical graduates now practicing in the United States and the similarly large number of U.S. and foreign citizens who have studied and worked abroad have obviously had an immense impact on health knowledge worldwide.

We advocate a strong program of scientific and professional exchange in all countries. The United States has an ethical and moral responsibility to participate in this exchange. Although in some instances we may teach a single country more than we will learn, we can surely learn more from the world as a whole than we teach any one nation.

Other developed countries will serve as the major focus for professional and scientific cooperation. These countries also have high densities of professional and scientific manpower and large research and development programs. They, too, mount programs to improve understanding, treatment, and care of cancers, heart disease, and other conditions of utmost concern to the United States.

Professional and scientific exchange with developing countries can also provide major benefits to the United States. Many developing countries possess one or more centers of scientific excellence, and the number of such centers will almost surely increase. Moreover, professional practitioners in developing countries are more experienced with certain types of morbidity than are their U.S. colleagues; they may also bring a different professional perspective to their practice.

In addition to working through international organizations and bilateral agreements, and providing direct financial and technical assistance to other countries, we need to step up exchanges of professional environmental scientists among countries. These exchanges would be extremely effective in disseminating much-needed expertise to developing countries and in acquiring intelligence on the needs of countries to protect their residents, including U.S. citizens, from environmental hazards. Key environmental agencies in this country need specific legislative authority, relaxation of travel ceilings, and additional foreign language capacity to activate exchanges of specialists and to provide direct technical assistance where needed. Such exchanges would allow more systematic dissemination of information to policy makers.

A focal point in the U.S. Government for such activity is the John E. Fogarty International Center for Advanced Study in the Health Sciences, which was created to promote scientific exchange with other countries and to expand cooperation in solving global health problems. Since it was established in 1968, the Center has implemented the largest professional and scientific exchange programs in health in the Government. The Center currently operates four major programs involving some 800 scholars-in-residence, visiting fellows, and U.S. and foreign exchange researchers each year.

Opportunities for U.S. health professionals to participate in international activities have diminished in recent years. Moreover, the impact of P.L. 94-484* will significantly decrease migration of foreign medical graduates to the United States. Thus, over the next decade, alternative means of professional and scientific technology transfer, including personnel exchanges, U.S. personnel participation in international assistance, and joint biomedical research and development programs should be expanded.

Conclusions and Recommendations

International activities of the U.S. Government for domestic health purposes may be divided into two classes:

- Those activities related to direct governmental provision of medical services to government employees, their dependents, and others;
- More general activities to improve, monitor, facilitate, or finance health services, and improve the health of U.S. citizens.

We have previously stated that it would probably not be advisable to use government facilities for U.S. citizens who are not government personnel or their dependents. We recommend the exploration of other uses. For example, several such facilities might be acceptable for the establishment of international centers for clinical exchange and research. However, the use of government facilities that provide health care to U.S. citizens for other international health objectives creates difficulties. To burden DOD overseas facilities with an added workload would, at least in the short term, further increase the physician requirements of DOD.

---

*P.L. 94-484 is the Health Professions Educational Assistance Act of 1976 which, among other things, ends the special priority given to foreign medical graduates applying for immigration to the United States.

The diversity and independence of institutions involved in the domestic health field seriously challenge coordination. Moreover, the agencies involved – DOD, HEW, and the VA – are the three largest in the U.S. Government. This means that they attach little importance to international health activities in their health facilities since these activities are only a miniscule portion of overall responsibility; and that, as bureaucracies, they show enormous inertia in regard to any attempts to promote change. Nonetheless, major reforms are in motion in all three agencies, which may serve to promote international health programs.

We recommend the creation of a task force comprising personnel from the Department of Defense, National Institutes of Health, VA, and the Department of State to evaluate alternative uses for these facilities.

In order to encourage full private-sector involvement in international professional and scientific cooperation in health, we recommend that an international conference on global health problems be held annually. Each year during the conference, participants would bring international and domestic experience to bear on a number of specific topics, and the activities of the U.S. Government in international health would be reviewed and critiqued. We recommend that conferences be managed and proceedings published by the Fogarty International Center. Selection of topics for discussion would be coördinated among the various government agencies, with participation of the private sector.

We believe the Fogarty International Center should continue to be the primary focus for coordinating and developing these international health exchange activities. Additional programmatic elements should be considered to further strengthen Fogarty Center activity in this area.

Decisions as to the appropriate number of persons needed to implement HEW's international health program will require detailed consideration. We do not believe that they will be immediately constrained by a work force of 600. On the other hand, the distribution of these personnel may be cause for some concern. FDA, HRA, and HSA, with principal responsibilities for many aspects of domestic health policy, have relatively few international personnel as compared with CDC, NIH, and the Office of the Assistant Secretary, OIH. Major improvement in the management, organization, and personnel of PHS international health activities is essential.

Congressional and popular constituencies for increased governmental international health activities now appear to exist. These constituencies can assist in achieving domestic health goals but need to be encouraged to work closely with the government.

The pursuit of international health activities should ensure that potentially useful medical and health information skills are freely communicated among countries. Domestic health programs and workers, in particular, should have rapid access to new developments and unique concentrations of health and health services technology in any foreign country.

International health activities should seek, insofar as possible and economically justifiable, to eliminate health hazards transmitted across our borders, those originating within the United States, as well as those imported from other countries.

The United States should try to ensure that all its citizens living and traveling abroad have access to preventive and curative health services. Similarly, agreements should be worked out for foreign nationals living or traveling in the United States so that they may have access to health services.

Chapter 4

Private-Sector Involvement

The private sector will continue to play an important role in the field of international affairs, especially in the international health arena. While U.S. Government funding of overseas aid ranks 12th among 17 OECD countries in terms of proportion of gross national product (Organization for Economic Cooperation and Development, 1976), U.S. private-sector funding overseas (about $1 billion in 1975 according to OECD) ranks third behind Sweden and Switzerland (Overseas Development Council, 1977). Furthermore, private aid includes more than money and property. Voluntary donations of time and effort by the private sector are not easily measured but add substantially to the size of already significant funding contributions.

Major private-sector groups include private voluntary organizations (PVOs), labor organizations, universities, foundations, and corporations (see Figure 8 for legal distinctions among these groups). They engage in research, education, training, and delivery of health services.

U.S. PVOs contribute significantly, along with governments and international organizations, to the creation of institutions in developing countries. Foundations and university groups frequently help at the higher, or apex, levels, and voluntary organizations frequently help at the lower, or grassroots, levels. Labor organizations typically help indigenous trade unionists. Private corporations contribute less obviously because of their primary business mission. They produce and sell health products but also function as employers. Often they provide health benefits to employees and dependents, and in some cases contribute cash, property, and services in support of local health goals.

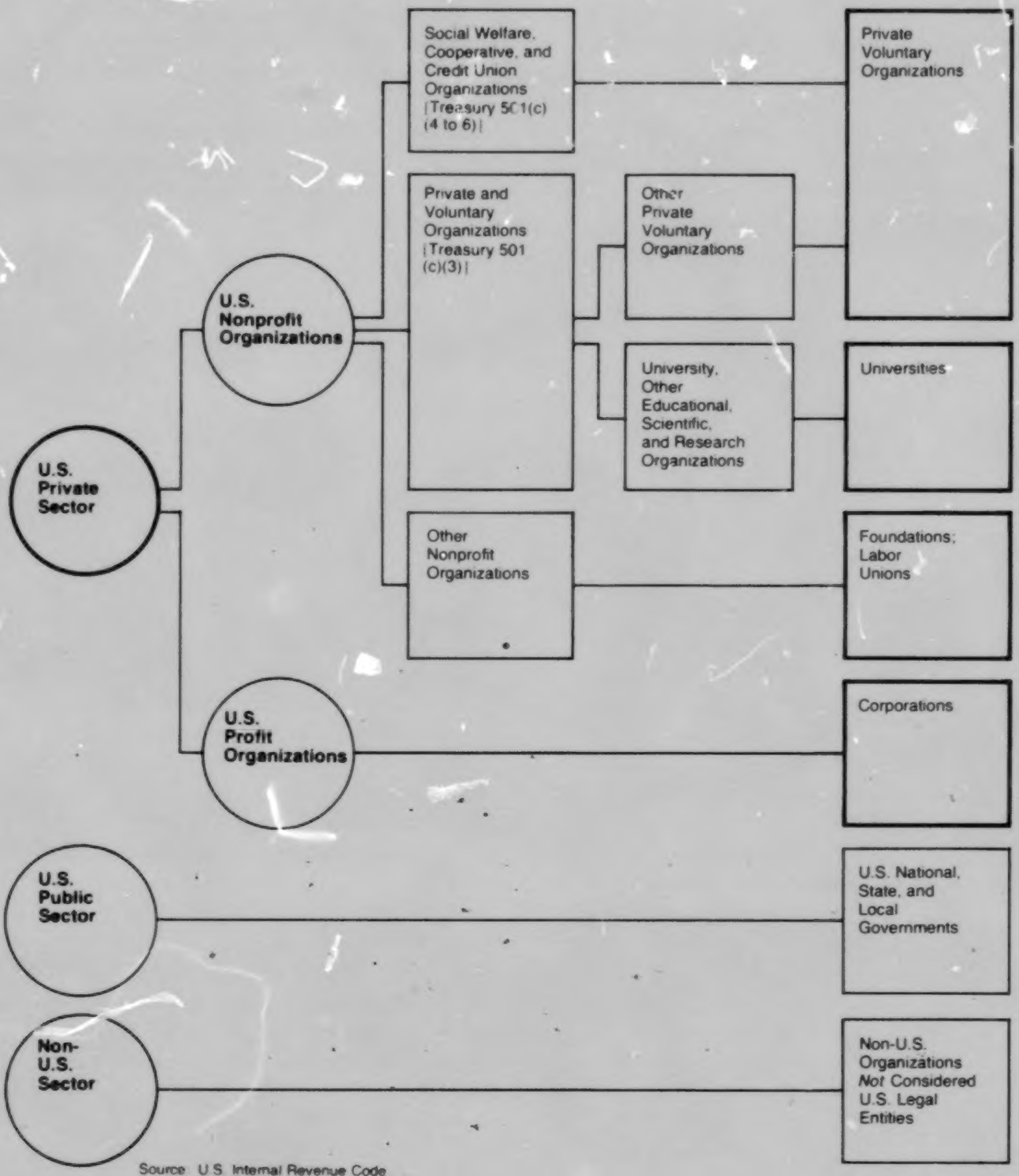
The characteristics and goals of voluntary organizations vary widely. Each has its unique purpose, style, and constituency. Some need government support; some need private foundation support; and others require corporate support. U.S. universities depend on their own endowments, contributions of private foundations, business, and government, or all combined. The private foundations, which are important sources of funds, exhibit a wide range of organization and programs – from the well-endowed foundations with substantial staff support (some overseas) to those with limited endowments and with relatively small staffs.

In 1973,* Congress endorsed its belief that private organizations can work more closely with government agencies to improve U.S. effectiveness in international health. This endorsement represents explicit congressional recognition that the private sector performs a unique role in foreign assistance.

---

*93rd Congress. December 17, 1973. S. 1143. Foreign Assistance Act of 1973. Public Law 93-189. 87 Statutes 714.

Figure 3 Legal Distinctions in the Private Sector


U.S. Private Sector
U.S. Nonprofit Organizations
U.S. Profit Organizations
U.S. Public Sector
Non-U.S. Sector
Social Welfare, Cooperative, and Credit Union Organizations [Treasury 501(c) (4 to 6)]
Private and Voluntary Organizations [Treasury 501 (c)(3)]
Other Nonprofit Organizations
Other Private Voluntary Organizations
University, Other Educational, Scientific, and Research Organizations
Private Voluntary Organizations
Universities
Foundations; Labor Unions
Corporations
U.S. National, State, and Local Governments
Non-U.S. Organizations *Not* Considered U.S. Legal Entities

Source U.S. Internal Revenue Code Categories of Nonprofit Organizations as cited in Section 501(c) (3 to 6)

While it would be unrealistic to suggest that private-sector groups assume full responsibility for the provision of adequate health in developing nations, we do believe that they can ably bring to the international health field innovative ideas and techniques. In fuller partnership with the government, however, private-sector involvement could become even more effective. The potential for an enhanced partnership between the public and private sectors is the subject of this section of our assessment. The activities of private voluntary organizations, labor organizations, universities, foundations, and corporations each differ markedly, but we have identified some common issues found frequently among these organizations.

Diversity of Private Voluntary Organizations

Private voluntary organizations differ according to the extent of their involvement in international health: Some are involved totally in international programs (Helen Keller International); others carry out domestic and international programs (the Nutrition Foundation); and others operate only domestically to influence international health policy. Some PVOs are engaged solely in health work (Medic Alert); others have a multifaceted program of which health is only a part (CARE). Some PVOs limit their operations to a given country or geographic area (America-Bureau for Medical Aid to China); others are active in a large number of countries (American Red Cross).

Inasmuch as the private voluntary organization mirrors the diverse interests of the American public and the ingenuity of the American spirit, a comprehensive definition of PVOs for all purposes and times is impossible. Any attempt to characterize PVOs by dimensions such as size of staff, size of budget, age, or geographic origins would be unfair and lead to unreasonable comparisons. To some degree, it could be argued that any specific PVO is now "appropriate" (appropriate size, appropriate age, etc.) for what it is attempting to accomplish. Nonetheless, students of PVOs and government agencies constantly face the need to distinguish PVOs from non-PVOs. Various ways of framing a set of characteristics have been prepared. We can distinguish three of the more obvious categories: the legal, the organizational, and the functional forms.

- **Legal form** – From the legal point of view, the distinctions between PVOs usually start with the category "nonprofit organization" in U.S. tax law (see Figure 8). Among nonprofit groups, certain organizations, such as foundations and labor unions, are usually excluded from being considered PVOs. For instance, the Agency for International Development excludes nonprofit universities and other such educational organizations, scientific and research organizations, and PVOs not meeting certain other criteria related to PVO registration and grant programs. The United Nations excludes from its registration program those PVOs which are not an international parent organization. Of the thousands of PVOs in the United States, less than 200 among those that apply are now registered officially by the Agency for International Development Advisory Committee on Voluntary Foreign Aid.

- **Organizational form** – With respect to organizational arrangements, PVOs in international work tend to be more often national in character with relatively small memberships and few local domestic chapters (except churches). They operate with paid staff and volunteers, without depending too heavily on their membership. Some PVOs are affiliated with similarly focused organizations from other countries. Their ties are often fairly weak, each member organization carrying out its own program with little or no support or interference from the parent group. The diversity of PVO internal organizations makes it difficult for governments to prepare suitable guidelines and procedures, except in the broadest humanitarian terms. There may be no formal hierarchy in a PVO, and leadership may be highly decentralized, differing sharply from the bureaucratic leadership in government.

- **Functional form** – Health-oriented PVOs function in three major areas. One area concerns public information, where the basic objective is to contribute to U.S. understanding and support of international health. The second area involves efforts to influence international health policy and its implementation through advice and consultation, and by public testimony before Congress. The third area encompasses provision of funds and other forms of direct assistance.

Another distinction can be made with respect to PVO operations overseas. These are sometimes divided into two categories:

(1) *agency* organizations, which are primarily concerned with providing education, preventive and curative services, and emergency relief;

(2) *professional* associations in international health, which are primarily concerned with upgrading knowledge, skill, standards, and working conditions of health and health-related professions. Typical agency PVOs are Project Hope, Medic Alert, and the American Lung Association. Typical professional PVOs are the American Nurse's Association, American Hospital Association, the American Medical Association, and the American Public Health Association.

PVOs may be categorized in many other ways – for example, medical, public health, population, and nutrition; religious and nonreligious; and disaster relief and developmental. There is, however, so much overlap among these functions (as any one PVO could be involved in several of these activities) that the problem of how to identify and how to count PVOs presents no ready solutions.

Churches as PVOs. Within the diversity of PVOs, the substantial contribution from one clearly identifiable category, the churches, deserves special attention. Religious institutions are moving beyond the missionary and evangelical justification for their work and have been gradually increasing their developmental efforts. The existence of sister churches as indigenous institutions in host countries provides an effective means for channeling outside support into a host country which would otherwise be sensitive about receiving direct outside support. Catholic Relief Services, Church World Services of the Protestants, the World Council of Churches, and other such church-related organizations are also very active in the Third World, as are smaller denominations, such as the Quakers of the Mennonite Central Committee.

Cooperatives as PVOs. U.S. cooperatives and credit unions have been instrumental in establishing cooperative structures in other countries. The cooperative form of organization at the community and village levels is considered beneficial to health projects and to development generally; in this respect there have been numerous successes in Latin America.

A constraint on the cooperative movement in the Third World, according to some observers, is that the cooperative approach may require a specialized type of education for carrying out shared responsibilities. This is debatable. In some cases, village co-ops in rural and rather primitive settings have worked well because of social and cultural homogeneity.

Government Support of PVOs. The President, by congressional mandate, is directed to "encourage and support, to the maximum extent practicable, the international assistance efforts, aims, and activities of U.S. voluntary organizations qualified for such service."* This support has taken the following forms:

- Grants to assist the infrastructure development and/or support the implementation of programs or projects of PVOs;
- Contracts to purchase expertise and/or services from PVOs;
- Goods and/or equipment for PVO operations overseas;
- Surplus food and other goods to host countries under auspices of PVOs;
- Transport of goods and equipment obtained by PVOs for use overseas;
- Guidance (in country) through U.S. Embassy and Mission personnel to PVO staffs and consultants in matters relating to protocol, contacts, introductions, and so on;
- Ongoing dialog with PVO personnel to stimulate interest in international health needs and guidance on how PVOs can work with government in helping meet needs;
- Opportunities for PVOs to become familiar with government policies, procedures, and resources (workshops, conferences, and publications);

---

*Foreign Assistance Act of 1961, as amended. Part 1, Section 2, Chapter 1.

- Tax incentives to encourage the public to donate cash, commodities, and technical services to PVO overseas programs.

The Agency for International Development provided some $83 million in grants and contracts to private and voluntary agencies in FY 1976. Including additional support extended through ocean freight, excess property, food commodity programs (P.L. 480, Title II), and grants for emergency disaster relief, AID-administered support to PVOs amounted to $415 million during FY 1976 for all sectors, including health.

Number of PVOs in the United States. An accurate count of the number of PVOs engaged in international health activity in the United States is lacking. Roughly 400 PVOs are engaged in third-world country development and about 300 are substantially engaged in international health. About 50 have a primary focus on "medicine and public health." Others have a broader focus such as food aid, disaster relief, refugee relief, or development assistance.

Role of PVOs

The following list, though not exhaustive, outlines the bulk of activities in which PVOs engage, primarily in developing countries.

- Provide direct health services (especially in disaster relief or during an epidemic);
- Provide technical assistance or consultants to developing countries for the purpose of designing, implementing, and evaluating programs;
- Award grants or other forms of financial assistance to aid governments and/or communities in implementing projects;
- Provide training opportunities for individuals;
- Provide food, other commodities, and equipment for country programs;
- Conduct research activities;
- Provide technical guidance on selection, sources, and availability of commodities;
- Sponsor conferences, meetings, travel, publication of documents, and educational material for exchange and dissemination of information;
- Engage in other diverse activities but all within the general categories of health, education, and welfare.

PVO Accomplishments

Although many came into being as relief agencies, especially since World War II, PVOs are now reforming their activities to meet long-term development objectives. PVO achievements in international health have been substantial, reflecting their diversity, uniqueness, and capacity for innovation. These characteristics enable PVOs to move swiftly, flexibly, and imaginatively into a new area of critical need; to arrive at an objective appraisal of a situation free of political influence; to engage in controversial activities; to experiment in an unfettered manner; and to give sympathetic personal attention to the variety of human problems that beset our increasingly dehumanized world.

No thorough assessment of PVO international health capacities, accomplishments, and limitations is available to guide private and public decision making, even for the near future. Recent studies of voluntaryism and philanthropy identify certain PVO features which both contribute to their past success and appear to be especially vulnerable for the coming years. Such problems as these demand attention: How can a PVO active in international health defend itself against worldwide rising inflation? How can a PVO attract technical expertise for international health activities at a time when multilateral, government, and business enterprises are making strong competing offers to people with the necessary skills for development work? More systematic studies are needed which can provide an understanding of these problems.

The PVO documentation presently available is largely descriptive and historical; our assessment of PVOs relies on more recent studies which address matters of urgent importance to PVOs and focus on the constraints faced by PVOs in providing their services, as well as public and private mechanisms available to relieve those constraints.

Current Limitations to PVO Activity

Three factors impose limitations on PVO activity today: funding, the attitudes of developing countries themselves, and the activities of the U.S. Government. Recent declines in the numbers of contributors to PVOs, accompanied by a proliferation of new voluntary agencies, have imposed a severe financial constraint on PVOs. Government contributions have also declined. While PVOs try to emphasize developmental goals in their programming, funds used directly for humanitarian acts are easier to solicit. Consequently, PVOs are forced into intense competition for a shrinking pool of resources.

Developing countries. The internal demands on PVOs as they adopt a new role in development of host country self-reliance are not well understood. Beyond associated funding difficulties, the new functions apparently require PVO staffs to operate somewhat differently than in previous times. To achieve greater effect, PVOs need a clearer understanding of the political, operational, and administrative requirements of the host country. They can evolve by using their permanent presence in the host country to transfer assistance which will develop local capacity.

Host countries have different perspectives on what role both U.S. and indigenous PVOs are expected to play. The activities of both types of PVOs are often limited, compounded by unfamiliarity with local laws and procedures. For example, unfavorable customs and duties regulations restrict U.S. PVOs in supplying capital, equipment, and materials. In addition, local PVOs have few skilled staff members. Often U.S. PVOs will assist indigenous PVOs in the management and administration of projects, ultimately discouraging self-help initiatives.

Some host governments consider it politically inappropriate to have indigenous participation and self-reliance programs funded by U.S. PVOs. Indigenous constraints exist whereby host-country tax arrangements may discourage local private-sector participation in, or financial contributions to, local PVOs. Typically, local PVOs are dependent upon their government for the financial support of their activities, thus few incentives exist for them to undertake activities which increase self-reliance.

U.S. Government. Selection of a proper role for the U.S. Government in relation to PVOs is difficult. We believe cooperation without control would be reasonable, but difficult to arrange. However, a better understanding of what the relationship should be and how we can expand PVO involvement in international health should be a matter of careful study.

As U.S. bilateral development assistance policy evolves from provision of services to development of self-reliance, the optimum form of cooperation between AID and PVOs must also change. At present, the linkages between AID and PVO policy are sometimes unavoidably mismanaged. For example, AID contracts and grants to PVOs sometimes expire before lasting change can be achieved; AID grant support can be used to develop existing PVO infrastructure, but cannot be used, except in certain specific ways, to develop host-country PVO infrastructures.

Understandable tension arises between AID and PVOs because of their different styles of operation: AID, a bilateral donor, provides financing to PVOs engaged in international work. However, many AID officials are aware of this dilemma and are working to find ways of improving operating relations between the two. According to PVOs, undue pressure from U.S. Government agencies to spend congressionally allocated funds within a fixed time frame often results in PVO selection of inappropriate projects and/or formulation of inappropriate plans, thereby reducing the efficacy of the PVO mission. PVO effectiveness is also reduced by overly detailed and inflexible restrictions on *where* (by country) and for *what* (by program area) type of activities government funds may be used. Such restrictions often conflict with PVO autonomy of interests, values, and professional expertise. Furthermore, excessive restrictions and regulations surrounding the purchase of commodities restrain U.S.

PVO project implementation, often forcing purchase of inappropriate supplies and equipment, and forestalling resource and infrastructure development in developing countries.

Another major area of constraint placed on PVOs by government is the expansive burden of planning and administrative requirements. These include:

- Accountability requirements which force PVOs to attempt to attain immediate, tangible, quantifiable results which cannot be achieved in the short term and for which evaluation measures have not been devised. For example, the most significant impact of PVO programs may be in awakening a "can do" self-reliance attitude;
- Documentation, bookkeeping, and accountability requirements severely tax the resources of PVOs, especially the smaller agencies;
- The complexity of government procedure and bureaucracy is paralyzing. The lead time necessary to develop and negotiate a grant or contract through government channels places severe operating constraints on the PVOs and the host country;
- PVOs are left to their own devices to negotiate and coordinate with the plethora of offices which must give their approval before funding is granted;
- Government desire for standardization, as reflected in regulations and procedures, inhibits PVO and host country innovations;
- Administrative personnel in government make professional program decisions which are contrary to the professional judgments of PVO staffs.

PVOs find, too, that government funding often becomes a foreign policy instrument rather than a technical resource; that such funding may contribute to neglect of a people-to-people approach; and an over-reliance on the "trickle-down" approach may minimize promotion of international voluntaryism and may provide inadequate tax incentives or even disincentives for funding from fragmentary sources.

PVOs acknowledge that the most important decisions in foreign-aid funding – program selection, planning, and implementation – are primarily in the hands of AID regional officials, not the PVOs themselves. Although new foreign assistance legislation encourages self-reliance and the use of PVOs in the process, regional staffs tend to resist this approach, causing significant problems between PVOs and government agencies. AID regional officials prefer to concentrate on the diplomatic practices of bilateral pursuits and. if private assistance is necessary, utilize only the larger PVOs. Dealing with a few large, well-organized PVOs appears easier than troubling with the diverse, more localized efforts of smaller PVOs. In fact, because the smaller PVOs typically involve themselves directly at the social level of the problem, AID officials may view smaller PVO methods as unconventional and haphazard.

In summary, competing interests, values, and priorities, combined with dissimilar operational procedures, cause most PVO problems. The issue is one of independence and autonomy. Their flexibility is constrained mainly by the accountability requirements resulting from involvement with the Federal Government. According to the PVOs themselves, government dollars tied to government demands reduce the very effectiveness the government seeks to gain.

PVOs and Their Impact on International Health

PVOs pursue a full range of activities in international health which especially emphasize a people-to-people approach at the grassroots level. The effectiveness of PVOs in these efforts can largely be attributed to flexible, imaginative, and humanitarian responsiveness. As the role of PVOs has shifted somewhat toward long-range development programs as opposed to the basic short-term relief activities in which they originally participated, they have significantly increased their impact on world health. To keep pace with this expansion in the midst of intensifying competition for private-sector funds, many PVOs have sought U.S. Government funding. The government has been attracted to PVOs because of their successful record in the field.

We hold that many of the questions raised in this assessment, particularly the need for a national policy for international health, require the joint decision of several government agencies, as well as the private sector. In lieu of one individual who could make all necessary decisions, we anticipate that some mechanisms will have to be established to bring together private-sector and government representatives. Such a forum could address problems arising from PVO and government relations.

Recommendations Concerning PVOs

PVO and Government Collaboration. A partnership between the U.S. Government and PVOs should be developed. No such focal point of responsibility now exists outside of AID's Bureau for Private and Humanitarian Assistance. Consideration should be given to establishing a responsibility for PVO affairs in the various activity centers for international health in the departments and agencies. (The existing Advisory Committee on Voluntary Foreign AID is too diverse to focus on international health.) In this way PVOs would have points of contact for seeking guidance, expressing concerns, obtaining grants and contracts, acquiring information on policy and programs, and so forth. PVOs could be assisted in their transition from providing relief and other humanitarian efforts to development, or in their attempts to integrate activities into a combined health, nutrition, and family planning approach.

Utilization of PVOs could increase if the U.S. Government would adequately encourage (financially or through policy leadership) its agencies to use them in development and in health. PVO legitimacy would be enhanced by a clear statement on international health policy by which they could adjust the orientation of, and establish more stability in, their activities. Funding issues, such as the balance between short-term and long-term funding for PVOs, could be more appropriately addressed.

Collaboration Among PVOs. PVOs could organize federations or consortia among themselves, centered on their interests, and thus make their views more effectively known to government. For example, organizations concentrating on delivery of services (CARE) or those providing technical assistance could combine, establish an international headquarters similar to the International Red Cross, and address themselves to Third World problems on the basis of shared experience. Given their collective expertise, such groups could then expand their surveillance potential for monitoring international health needs. Specific impact assessments of their efforts could then be more successfully promoted in government and international organizations such as WHO, FAO, or UNCTAD (United Nations Conference on Trade and Development). Furthermore, given a broader base from which to state their general goals, a more measurable impact could be generated with regard to priority setting, resource allocation, and funding.

PVO Use of Government Funds. PVOs argue that they are reluctant to accept U.S. Government funding for a number of reasons. They are:

- The U.S. Government places low priority on certain developing countries where needs are greatest;

- The U.S. Government makes short-term grants which do not assure continuity of interest and support;

- The U.S. Government targets its funding and overemphasizes one program (reduction of population measures) at a cost to other programs.

Indeed, PVOs contend that since U.S. Government funding is targeted and represents a substantial share of the total funding of PVOs, the PVO becomes no more than a quasi-government agency carrying out targeted programs.

In addition to collaboration among PVOs, a closer association among PVOs in the international health field and Federal agencies should be encouraged. One proposal often suggested by PVOs we consulted during this study would be for the Federal Government to allocate long-term funds for the establishment of a *National Endowment for International Health* along the lines of the present National Endowments for the Arts and Humanities. Careful study of this proposal should be undertaken.

The attributes of the endowment might include the following: It would stimulate financial support and provide technical and planning assistance for PVOs; it would not operate field projects. It would focus on basic human needs, since health should be integrated with other development activities. It would finance only U.S. private nonprofit organizations. It should be apolitical and avoid entanglements with national or multinational governmental bureaucracies. It would be an independent entity directly responsible to the President and a governing council of its own.

The endowment would be structured so as to facilitate support of PVO health and development activities overseas through the use of flexible grant and contract guidelines. Grants would be free to coincide with foundation goals. This separateness from official U.S. Government development activities would serve to attract private foundation funds in joint financing of projects in research, training, education, and services in international health.

Independent funding would also permit integration of foundation and U.S. multilateral funds and manpower. The Consultative Group on International Agricultural Research, established by the World Bank and the U.S. Government and involving staff and money from both the Ford and Rockefeller Foundations, provides an example of this three-way input.

PVO and Multilateral Collaboration U.S. PVOs, because they are not international entities in their own right, often find difficulty in collaborating with multilateral organizations. The United Nations, through its New York headquarters, has established two mechanisms whereby PVOs may obtain an international consultative status to partially alleviate this problem. The first mechanism operates through the Office of Public Information, the second grants consultative status to a PVO in conjunction with the United Nations Economic and Social Council (ECOSOC).

Consultative status conferred by the Office of Public Information is the more generally preferred, owing to political implications of any membership application to the United Nations. Decisions relating to acceptance are made by the Secretariat. Criteria for selection are based almost solely on the merits of the organization's information programs and their potential for redisseminating information on behalf of the United Nations.

Decisions affecting ECOSOC membership are made by a 13-member government panel, and depending on the composition of the panel, the decisions can become political. Once accepted, however, PVOs may make statements related to policy formulation, provide technical expertise (particularly as it relates to health and medical services, education via satellite, and agriculture), and contribute to the "funds-in-trust" as established through the Technical Assistance section of the UNDP for jointly operated programs.

The United Nations does not have a precise method for defining international PVOs, nor does it offer international accreditation. Through membership in ECOSOC, it can, however, give prestige. Attempts at consolidation of various seemingly related PVOs have proven unsuccessful and are no longer encouraged. ECOSOC argues that most PVOs are organized in accordance with very specific by-laws and although they may appear to support similar objectives, their underlying purposes preclude a more general union. For example, several PVOs may aspire to upgrading the status of women or expanding their role in the development of their societies, but each tends to focus on these issues in a slightly different manner. Therefore, if consolidation is to be attempted again, it will have to be cognizant of the self-imposed limitations of most PVOs.

PVO and Host Country Collaboration. PVOs could function more effectively if private-sector and U.S. Government guidelines were established which would:

- Provide incentives to encourage the practice of voluntaryism and self-reliance in host countries. For example, programs which link U.S. citizen groups to volunteer citizen groups in developing countries of the world could help to exchange information on public health matters and provide manpower training and health services. Returned Peace Corps volunteers are an untapped resource for educating the U.S. public on development issues. They can increase the potential for linkages between volunteer citizens groups in the United States and in developing countries. The potential for such linkage would also be increased by broadening the base of U.S. citizen participation on PVO boards;

- Encourage U.S. PVOs to foster cooperative voluntary action among those providing host country leadership and among private-sector resources;

- Require matching amounts from either U.S. Government funds or from host country PVOs for project development in international health.

In most developing countries, the usefulness of PVOs is not acknowledged. As a result, national development plans and planning sessions usually omit both foreign and domestic PVOs and their financial, technical, and political resources.

PVO and U.S. Collaboration Abroad. The absence of mechanisms to coordinate U.S. health policy in developing countries leads to misunderstandings, lack of coordination, and sometimes conflict between official U.S. actions and those of PVOs operating in international health. One of the most serious problems is the lack of coordinated effort between governments and PVOs.

Often, too, PVOs have little or no contact with U.S. agencies in a host country. This may be due in part to PVO isolation, attitudes on separation of church and state, their knowledge that U.S. agencies deal with officials of developing countries at the top level, and the complexities of U.S. requirements and procedures to obtain support or even advice.

In a recent survey of PVO relationships with U.S. officials in developing countries, it was found that one-half of the PVOs thought the U.S. officials in these countries were poorly informed about PVO activities. Only one PVO in five perceived U.S. officials to be well informed; these were apparently the larger PVOs which work closest with U.S. officials and receive surplus goods, excess food, and family planning supplies. Three of four PVOs surveyed never were consulted by U.S. officials in the developing country.

AID officials usually respond directly to the needs and requests of developing country officials. Consequently, an opportunity exists to bring PVOs into discussions between U.S. and host country officials concerned about health needs. The United States, however, does not now have health experts on site in many developing countries. Establishment of a PVO health focal point in the U.S. Embassy of each developing country would encourage more collaborative efforts.

Need for a Data Base on PVO Activity. No data are collected on a standard basis describing the participation of foreign and indigenous PVOs in countries of the world, and their characteristics. Donor organizations, donor governments, and recipient organizations and governments require such information. For governments of developing countries, the number and location of indigenous PVOs and other data are essential tools in developing their national health plans. We believe this information should be gathered, as it will increase public involvement at both operational and functional levels.

Labor Organizations and Their Role in International Health

Labor is becoming increasingly involved in improving health care for trade unionists in developing countries. Among all unions, the AFL-CIO is most involved. It has links in Asia with the Asian-American Free Labor Institute (AAFLI); in Africa with the African-American Labor Center; and in Latin America and the Caribbean with the American Institute for Free Labor Development. The first of these organizations has committed nearly $470,000 to health since its founding in 1968; the second has contributed $1,500,000 over the last 5 years; while over the last 10 years, the third institution has spent $285,000.

Labor concentrates on "impact projects" in developing countries and gives special consideration to the needs of area trade union workers and their families; the latest "reading" of local attitudes; and the community's readiness to complement the project.

After programs have been selected, there is little direct involvement of the AFL-CIO. Program requests of the union substantially determine contributions to the host country, and consist mainly of medical and dental equipment, drugs, mobile clinics, medical supplies, and funds for construction and renovation of health facilities. In Zaire, for example, the Workers and Peasants Solidarity Fund (CASOP), a body within the *Union Nationale des Travailleurs du Zaire* which provides a nationwide program of medical care and social assistance, is aided through the African-American Labor Center. Together they provide one vehicle for transportation, pharmaceuticals, medical instruments and supplies, and training seminars.

Mobilization of Political Resources. Trade unions in developing countries are demonstrating a significant capacity to influence the policy decisions of their governments. U.S. labor organizations, through their advice and support to foreign trade unions, have influenced health policies abroad in recent years. Consequently, American international labor organizations with overseas activities are being identified by adversary groups as instruments of U.S. foreign policy.

International trade union members are creating grassroots organizations with demands accurately reflecting the needs of industrial workers and their families. Increasingly, demands for greater health care have been voiced and upper echelons of the labor networks have recognized these demands. Consequently, although improved health care is not one of labor's primary focuses, it is becoming a larger concern.

While the AFL-CIO's international labor organizations can respond to health needs with the strategic provision of supplies and funds, union leaders in host countries also can use their political influence to respond to demands for improved health care. In Turkey, for example, as a result of union and AAFLI activities in the Migrant Agricultural Worker's Health Program (which involved a shelter program and an accompanying publicity campaign), the Ministry of Health proposed that the government's 1977 budget include funds for 20 shelters; that the regional government promulgate health standards for workers' field camps; and that all migrant workers be eligible for treatment in state-owned hospitals. Thus, the trade union represents a new element of power in health policy leadership in developing countries.

Negative reactions toward labor's use of its political influence have arisen abroad when labor helped to establish social security systems in which workers received greatest benefits while the poor received relatively little. To the poor in developing nations, organized labor represents a target for upward mobility.

Provision of Educational Services. A smaller, but important, component of labor's health strategy is the provision of educational services for trade union members and their families. Topics include basic health practices, family planning, maternal and child health care, and nutrition. Unionists are trained in these areas and then the training is incorporated into their regular education service.

Dissemination of Information and Knowledge. As labor's activities in health have expanded, continental and international seminars have been conducted to disseminate information gained from the experiences of various program efforts.

Limitations to Labor's Involvement in International Health and Some Future Directions

Since international health is not central to union objectives, unions are limited in their funding of relevant programs. If, however, workers' needs are not met through other private or public means, their continued demands may force greater participation of labor in the health sector here and abroad.

Because of the present low priority for improved health care, labor activities in this area rely heavily on local planners and/or outside help. While this circumstance limits broad planning and possible integration with ongoing health programs in this country and overseas, it does enhance local or other types of U.S. participation.

The scope of labor's activities in health and other areas is further limited, since programs can be initiated only in places where unions exist to request them. Consequently, labor activities tend to be found in urban centers rather than rural areas. Unfortunately, the greatest health care needs of developing countries are in rural areas.

Although labor's part in international health may be small in relation to the role of other private-sector actors, its activities display features which could significantly enhance the effectiveness of the more prominent contributors. These features include:

- *Minimum involvement* – By relying on a self-help policy, labor has avoided creating dependencies on its programs. Thus programs can continue without the presence of organized labor.

- *Upward planning versus downward planning* – Labor's program planning mechanisms give close attention to requests from the lowest level of organized workers; these people provide a clear picture of their needs. Much of the efficacy of labor programs is due to this type of mechanism. Recent U.S. foreign assistance health projects have also involved establishment of local planning committees to determine local health requirements. Rather than merely suggesting changes in a system imposed on the community by outside planners (as is typically the case in government foreign assistance efforts), the indigenous trade unions initiate and pursue the development of locally determined health programs.

Local trade unions have demonstrated that participation of indigenous volunteer organizations encourages self-reliance, results in minimal need for outside support, and reduces costs for the U.S. Government and private organizations. We believe that the government and private institutions involved in international health could give greater attention to these features of U.S. labor activities.

We believe labor could also expand its role substantially in international health. Its continued and broadened successes certainly would enhance the attractiveness of unionization to laborers worldwide.

The Universities and International Health

Education of U.S. Health Professionals. Many universities in the United States offer courses, programs, or degrees heavily related to international health. U.S. students in health and related professions go abroad not only to study but also to do research and to gain clinical experience. Many of these schools award academic credit for foreign experience, but determination of credit hours is a problem. Although some are self-supporting, many students receive financial aid from various sources. These include the U.S. Government, U.S. corporations, private foundations, and the universities themselves. Many schools are concerned about the extent of supervision provided to students and the difficulty in evaluating their gains in skills and knowledge.

Education and Provision of Skills to Foreign Students. Many of the current health ministers and leaders in developing countries have been U.S.-educated students. Upon completion of their health studies, they returned to their home country to assume responsible posts. On the other hand, many students make the decision to stay on as health professionals in the United States. The pattern of health manpower migration is described in Chapter 8.

Foreign professionals trained at U.S. universities return home oriented toward health practice in the developed world. They are equipped with methods and techniques appropriate to U.S. technology but not adaptable to their own national needs and level of technology. Such people either overcome these obstacles and become prominent in the health affairs of their country, migrate to an environment in which they can function, or become frustrated and subsequently drop out. Clinical experience provided to foreign medical students at university-affiliated teaching hospitals is often somewhat inappropriate due to lack of adequate attention to their specific training needs.

Thus the role of U.S. universities in the training of foreign health professionals is both beneficial and also potentially problematical.

Provision of Faculty Services Abroad. University faculty members work abroad as visiting professors or advisers, often focusing on host nation health problems. Usually a major constraint on faculty participation abroad is the concern that a commitment to overseas service could threaten professional growth or tenure status. Another constraint is the need for financial security; restrictions on leave policy may also be an inhibiting factor. Finally, replacement costs are incurred by the university. A senior faculty member taking leave to do overseas work helps to cut the school budget or may, in some cases, permit unused salaries to be appropriated for the hiring of one or more junior people as replacements. The high cost of finding and orienting replacement personnel, however, may eliminate any such opportunity.

Formation of Consortia for Cooperative Effort in Support of Foreign Schools. Many U.S. universities form consortia in an attempt to broaden their programmatic input into international health. They may operate through a formal corporate structure, as in the case of the Mid-western Universities Consortium for International Activities (MUCIA), or on an ad hoc basis. Their objectives may be narrowly defined, as with Case Western's schistosomiasis project, or more broadly stated. Generally, consortia are established to achieve particular project objectives with an anticipated life expectancy directly correlated to the funding potential of the overall program.

Currently, few such consortia exist. The MUCIA Health Center was dissolved in June 1977 for lack of adequate funding. The Director of the MUCIA Health Center stated that international health is generally considered to be a low-priority item and therefore cannot compete successfully with the general orientation toward agriculture common among land-grant schools. Other consortia have been terminated as projects have been completed. If consortia are to be encouraged as viable mechanisms for broadening the collective potential of pooled resources and key personnel over a sustained period of time, then consideration will have to be given to elevating international health to a competitive status.

Contracts for Special Programs. The United States often makes contractual arrangements with foreign schools. Financial support sometimes is provided by the U.S. Government, typically through AID. The U.S. schools assist in setting academic and research goals, transmitting administration, curricula, and teaching methods, and training key personnel. Another type of contractual arrangement is a department-to-department relationship. However, this relationship has these constraints: (1) U.S.-perceived goals are often not relevant to the host country's needs; (2) research programs are more laboratory related and less related to the community; and (3) foreign students leave their home country and gravitate toward the United States.

Contractual arrangements for the establishment of International Centers for Medical Research and Training are supported by NIH grants to U.S. medical schools for cooperative work with specific foreign institutions. They are usually independent of local medical schools. These centers are research oriented and have been criticized because they do not address local health needs directly through training and service activities.

Limitations to University Activities in International Health

General Aspects of Funding. Inadequate funding serves as the primary constraint of U.S. universities in the development and implementation of international health programs. Since about 1965, funding levels have declined dramatically, and sources of funds are limited. At present most funds are supplied by the Federal Government. Some of the more heavily endowed universities have greater latitude in program development, but these are relatively few. For the most part, universities are dependent on outside sources of support such as NIH and AID. NSF contributes to some university projects. Public universities are also active in international health and depend on State appropriations, rather than private foundation or corporate funds.

Given the tight budgetary constraints and the health services they must provide to their own communities, universities are hard pressed to defend the diversion of their budgets to international projects. A State university, for instance, must defend its budget before the State legislature; there is little likelihood that it would support either sending students and/or faculty overseas for training or bringing others to its campus.

U.S. Government Support. Complaints about funding international health programs of U.S. universities focus on government support problems; academics argue the following:

- International research support is difficult to obtain from the domestic science agencies;
- Monies available for research or technical services are allocated to only a few universities and in some instances provide the sole means of support for specific university departments;
- Project emphasis (where it occurs at all) is too transitory;
- The provisions of the Foreign Assistance Act, which encourage and support U.S. private voluntary organizations to work in developing countries, specifically exclude universities; those intended for university institution building [Section 211(d) grants] have been used less and less to support work in the health sector during the past 5 years. In fact, the latest legislative action to facilitate U.S. university involvement in the developing world (Title XII) includes food production and nutrition, but excludes health from targeted activities.

Length of Funding Period. The effectiveness of development assistance programs depends heavily on continuity and long-term involvement. Short time periods stipulated in some university contracts often preclude the development of meaningful rapport with a host government. Academics themselves argue that program effectiveness would be improved if U.S. or foundation funds were committed for a minimum of 5 years.

Lack of Self-Advocacy. The university community in the United States has, to date, been among the most notable of those involved in the promotion of international health activities. Many academics contend that the necessary justifications for more university involvement in international health do exist. Yet, thus far they seem hesitant to become public advocates and have offered little commentary to congressional hearings. For example, the subject of health was left out of legislation creating Appropriate Technology International, Inc., in large part, say critics, because of insufficient support from the academic community.

Host Country Linkages. Developing countries view some international health programs as the mere imposition of an American institutional structure on top of an already existing local unit, with no attempt at integration or mutuality of purpose. The concept of "institutional linkages" as it concerns U.S. university to host-university collaboration tends to minimize this objection. This concept could be expanded to include multiuniversity collaboration as in the Program for International Exchange in Gynecology and Obstetrics (PIEGO).

Individual Faculty Initiatives. Although our academics generally feel that institutional involvement in international health programs is preferable to individual faculty involvement, practical considerations make implementation quite difficult. Program development is based on the competence of certain key individuals; at present, individuals for the most part, not universities, attract program money. For this reason, the majority of universities find difficulty in contradicting the stated priorities of those individuals.

Short-Term Individual Consultancies. Short-term consultancy arrangements featuring key faculty individuals are common in our international health projects. However, short-term consultancies in international health are criticized for many reasons, primarily because programming of such consultancies is an exceptionally demanding task that is often not carried out as well as it should be. Their short-term nature limits the consultant's involvement in the implementation phase. Moreover, continued use of the same individuals discourages the development of a permanent cadre of trained health technicians to work within both the United States and developing countries.

University and Host Country Collaboration. The success of U.S. university collaboration with a host country on health program planning depends on how well each party understands the other's perceptions, motivations, and capacities. The academic community contends that host countries (1) do not clearly define their priorities; (2) often support recommendations at odds with local needs; (3) too easily direct potential health dollars to competing national interests; (4) cannot assure program continuity because of political constraints; and (5) suffer from too few mid-level health system managers and planners. Developing countries contend that academics (1) often fail to understand the host country role as decision maker in relation to their role as adviser; and (2) too often fail to tailor solutions to a country's current stage of development.

U.S. Universities and Their Potential Contributions to Solving World Health Problems

The American university community desires a greater role in helping to ameliorate world health problems. Universities also have an increased interest in broad social and economic development. They share a real interest in expanding research and knowledge in international health. Feedback from overseas programs and research findings augment U.S. domestic research and health operations. The overseas experience also provides an outlet for changing student and faculty life styles and interests.

Greater Emphasis on Rural Health. American universities usually limit their interest in urban health planning to population projections and the methods necessary for meeting these projections. The subject of rural health planning consists of social and cultural values as they relate to land, the ways people survive, networks of self-help, environmental perceptions, historical processes of change, and so on.

At present, most health program development is concentrated within U.S. schools of public health with intellectual and geographic orientation to urban health care problems. Other university programs more directly related to problems of a rural environment are often overlooked. In many instances, monies are awarded more on the basis of school ties and proximity to "establishment" centers like New York and Washington, or according to individual, rather than institutional, reputations.

Institutional Linkages. Institutional linkages between U.S. and foreign universities could provide for a semipermanent or permanent university presence in developing countries. Linkages should involve not only an elite few; rather they should foster communication between institutions with demonstrated interest in the health problems of rural communities. Funding for such linkages should show preference for education and training with relevance to health in developing countries.

When considering linkages, we must ask to what extent are academics considered to be participants in the development process. Many academics feel that they cannot easily participate, given their Stateside locations; therefore, programs should be created that will allow extended service abroad.

Training Key Health Manpower. U.S. health professional education has served as a model for many nations. Although this particular model may not be entirely appropriate to the needs of the developing world, it could be adapted with certain changes. Medical support staff, including paramedics, nurse practitioners, and village midwives, as well as doctors and nurses, should be trained. Simplified, effective, low-cost methods are required if key services are to be provided.

Available within the university setting are many disciplines from which to draw. When integrated properly, relevant curricula and flexible programming results can be realized. If the concept of institutional linkage is added to this, then we could begin effective interaction with host countries for the purpose of improving the health environment.

Private Foundations and Their Role in International Health

Private foundations number close to 22,000, but few operate in the international arena. Nonetheless, the international health initiatives of private foundations have been significant and beneficial.

Grant Making. Foundations employ grant making as the primary mechanism of their work. Grants – or transfer of philanthropic resources to institutions, organizations, or individuals – are intended to support a wide range of activities aimed at the solution of specific human problems.

Partly because of limited resources, foundations rarely provide grants to cover services or direct operational costs, to build infrastructures, or to purchase capital goods. Instead they favor research, education and training, and institutional development. They believe this emphasis will generate concern about human problems such as population growth and will enlighten policy makers as well as those who carry out their policies. Increasingly, as society addresses international health problems, it will recognize the need to develop the capacity of people and institutions dealing with these problems.

Other General Activities Pertinent to Private Foundations. Under some circumstances, foundations may choose direct operational roles. The Milbank Memorial Fund, for example, publishes a journal on health services. Foundations often commission research to assess major issues of public concern, such as the recently completed Ford Foundation study on reproduction and human welfare.

A frequently overlooked aspect of direct operations is the professional work conducted by foundation staff members themselves. Such endeavors include research, training, and, most importantly, facilitating the exchange of information or bringing together groups of individuals, institutions, or donors into common endeavors.

Scope and Diversity of Current Private Foundation Activities

According to the Foundation Center, there are approximately 22,000 active foundations in the United States: The assets of the top 50 foundations approximated $15 billion in 1975. A sum of $1 billion was committed for philanthropic purposes. Most of these resources were allocated for domestic projects. In fact, only 9 of the top 25 foundations conducted activities of an international character (see Table 2). According to the Foundation Center's latest compendium of international philanthropy in the United States, about 7 percent, or $71 million, of total foundation expenditures in 1976 was designated for international activity; approximately 25 percent of this, or under $20 million, was targeted for health and welfare.

Although many foundations engage in international work, the bulk of international activities has been conducted by foundations with large corporate assets. For example, only seven U.S. foundations account for 88 percent of all international grant making (see Table 3). Among these foundations, there exists considerable diversity in focus, geographic choice, and methods of operation. Only four of the top internationally oriented foundations direct funding to programs of international health. Table 4 shows the monetary distribution of grant making among three international health categories, as well as the total dollar commitment, of these four foundations. Only the Ford and Rockefeller Foundations have had international programs aimed beyond one specific geographic area or issue. Ford Foundation resources are primarily directed to population and agriculture; those of the Rockefeller Foundation are about evenly divided between health and population. In both cases, nutrition funding is limited, with concentration primarily on policy and social science issues. Kellogg Foundation program efforts are allocated almost entirely to health care in Latin America; and contributions of the Edna McConnell Clark Foundation are targeted for biomedical research in one disease – schistosomiasis.

Table 2. Private Foundations With International Health Activities by Rank, Assets, and Commitments in 1975

Foundation	Rank	Assets ($ millions)	Commitments ($ millions)
Ford Foundation	1	3,145	224
Rockefeller Foundation	2	840	33
Kresge Foundation	4	658	27
Mellon Foundation (Andrew W.)	5	636	26
Kellogg Foundation	7	577	20
Merrill Trust	9	65	20
Commonwealth Fund	17	111	12
Rockefeller Brothers Fund	18	230	10
Clark (Edna McConnell)	23	99	7

Source: The Foundation Center. 1977. International Philanthropy: A Compilation of Grants by U.S. Foundations. New York.

The importance of diversity is clear. The Ford Foundation has devoted considerable resources to the study of reproductive biology and contraceptive development – followed by population/social sciences, family planning management, and communications. Recently, research in other areas, such as nutrition and the role and status of women, has been incorporated into the Ford program. The Rockefeller Foundation also accords high priority to contraceptive development and the population/social sciences. However, it also has programs in health care, community medicine, tropical diseases, and, more recently, in nutrition policy/planning.

The smaller, specialized foundations show even more diversification of interest. The Clark and Hewlett Foundations have disease-specific programs in Africa, schistosomiasis and onchocerciasis, respectively. Some foundations advance service programs such as Project Hope which is funded by the Steel and Davis Foundations. Others concentrate their resources geographically, like the China Medical Board in East Asia and Kellogg and Macy in Latin America.

Table 3. Percent Contribution of Various Private Foundations to International Activities in 1976

Foundation	Percent
Ford Foundation	50
Kellogg Foundation	11
Lilly Endowment, Inc.	10
Rockefeller Foundation	8
Rockefeller Brothers Fund	4
Mellon Foundation (Andrew W.)	3
Carnegie Corporation of N.Y.	2
All	88

Source: The Foundation Center. 1977. International Philanthropy: A Compilation of Grants by U.S. Foundations. New York.

Table 4. Selected Private Foundations According to Commitments for Health, Nutrition, Population, and All Purposes

Foundation (Year)	International Health ($ Millions) Health	Nutrition	Population	All	All Commitments
Ford Foundation (1976)	0.1	0.7	4.7	5.5	137.1
Rockefeller Foundation (1976)	4.7	0.1	4.7	9.5	42.8
Kellogg Foundation (1975)	4.0	1.2	–	5.2	20.0
Clark (Edna McConnell) (1975)	2.2	–	–	2.2	8.1

Source: Foundation annual reports. 1975 and 1976.

Private Foundation Achievements

The pioneering role of philanthropic institutions in international health is well established. Until the 1950s, the leading organization in international health, public or private, was the Rockefeller Foundation. Its work over the past half century includes achievements in disease control programs, establishment of university public health programs in the United States, and establishment of health institutions in developing countries such as Colombia, Thailand, Turkey, Indonesia, Zaire, and Brazil. These institutional development efforts have been criticized as transfers of inappropriate Western medical models, but they have also contained strong community medical and health care delivery system components.

Population is another area where private foundations have played a key role. From 1920 to 1950, private philanthropic support for basic demographic and reproductive studies by such foundations as the Scripps Foundation, the Milbank Memorial Fund, and the Scaife Family Trust was increased. Many of today's leading population associations and institutions are products of those early efforts.

For example, from the Williamsburg Conference on Population in 1952, initiated by Mr. John D. Rockefeller III, recommendations emerged resulting in the establishment of the Population Council in 1953. The Council, with strong and sustained support from Ford, Rockefeller, and Scaife funds, has been the undisputed intellectual leader in population during its first two decades of operations.

In conjunction with the Population Council, the major foundations have supported other population initiatives. These include the establishment of many of the departments of population in U.S. universities supporting the initiation of family planning programs in Taiwan, South Korea, India, and Pakistan; manpower training and institutional development programs in developing countries; and support for basic and applied research in reproduction and contraception in developed country institutions.

With respect to agriculture, the foundations – principally Ford and Rockefeller – have been responsible for establishing and funding the centralized research institutes which developed the agricultural technology of the Green Revolution, perhaps the greatest single contribution of the nonprofit private sector to world agricultural development.

Private Foundations and Their Changing Priorities. Foundation priorities are based on a combination of factors including expert judgment of needs, public consciousness of issues and needs, priorities of government, interests of foundation directorates, and finances. As public agency attention to international health and population problems began to emerge (and be expressed through publicly supported actions), the role of the major private foundations also changed. In part because of the creation of WHO in 1947 and AID in 1949, the Rockefeller Foundation abolished its autonomous International Health Division in 1951 and incorporated health into its general organizational structure. The establishment of public agencies and funds for population resulted in even more dramatic changes.

Private philanthropies provided essentially all of the external resources for population activities until the mid-1960s. Beginning in 1966, public resources from governments and through multilateral agencies escalated rapidly, and by 1972, private philanthropies contributed less than 10 percent of total funds for population assistance.

This declining percentage contribution was less a result of diminishing private foundation commitment to population activities than a consequence of a massive influx of public funds. Interestingly, shifts in funding patterns coincided with an evolving perception of the role of health, nutrition, and population in the welfare of people in poor countries. These fields, though competitive with each other, began to be viewed by some as integral elements of the overall development process. The rationale for population activities, for example, began to focus more on human rights and welfare as a major goal than simply on achieving fertility declines.

For several decades, private foundations have promoted individual and public institutional interest in health problems overseas. Since no systematic means exist for measuring foundation influence, other sectors have difficulty in understanding and benefiting from the apparent linkage between foundation initiatives, public sentiment, and government and multilateral agency program directions.

Although demography, biomedical research, and family planning remain important elements of foundation activity, new interests have emerged. These include, among others, studies of the basic development process, human behavior and motivation in fertility regulation, and the role of women in development. Also hunger and malnutrition are of increasing concern; they are seen as the product of complex social, economic, political, and traditional medical factors. There has also been growing attention to the role of agriculture, employment, and income distribution in nutrition planning and policy. In health care, too, foundations recognize the need for nonprofessional workers, community-based participation and control, and simpler and more appropriate technologies.

Private Foundations and the Development of New Technology. Private foundations have, in many cases, pioneered research and development of new technologies. The yellow fever vaccine developed by the Rockefeller Foundation is a classic example, but more recent illustrations include contraceptive development and a host of technological interventions against tropical diseases.

Private Foundations and the Development of Manpower and Institutions in Developing Countries. The major foundations are devoting increased attention to policy and social science research aimed at developing capabilities within societies where problems actually exist. The Rockefeller Foundation's education and development program fosters university-based capabilities in health, as well as in social and agricultural sciences. Rockefeller staff and resources for this program are committed for periods of 10 to 15 years. The Ford Foundation has long operated research, training, and fellowship programs for developing expertise in a variety of countries. Those who benefit can contribute to the building of institutions in their own countries.

Private Foundations and Their Influence on Priorities of Developing Countries. Despite successes in technological development and behavioral and programmatic research in developed countries, progress in solving human welfare problems in developing countries will depend primarily upon the capabilities and motivation of leaders within those countries. Thus, although pressures to direct resources to developed settings remain great, private foundations are tending to direct available resources to developing countries and to give them more control over the priorities in the use of these resources. Operational approaches by foundations now explicitly recognize the role of developing countries in their own development. Foundations also appreciate the need for institutional mechanisms to promote dialogue and transfer of knowledge and technology between people and institutions in developed and developing countries.

Linkage Institutions. Foundations have played a significant role in creating linkage institutions to provide bridges for the development and exchange of knowledge between countries.

International research centers must cope with a host of conflicting ideological, political, and scientific issues. For example, control of research validity is extremely difficult where data gathering, analysis, and interpretation are affected by varying local customs, practices, and resources. Interestingly, foundations have been most effective in this effort, whereas individual governments may, for political reasons, find difficulty in undertaking the actual development process and large bilateral or multilateral donors simply may not be able to move with sufficient speed or flexibility.

Foundations show their skill when they integrate health, nutrition, and population concerns with other development activities, the most important being rural development efforts. They also create opportunities for more donor-to-donor and donor-to-recipient coordination whereby specific development problems are addressed.

In summary, the linking mechanisms brought about by foundations have several common features that could serve as models for governments and multilateral organizations:

- The mechanisms almost always primarily involve scientists from developing countries, rather than from developed countries;

- The mechanisms establishing networks that have remained cohesive and productive have sharply defined targets and foci. Associations loosely grouped for broad purposes (either scientific or professional) have rarely achieved comparable results;

- The initiative for forming linkages by the foundations and for identifying relevant needs, people, institutions, and mechanisms, has rested primarily upon field, rather than headquarters, staff. Larger public organizations (bilateral and multilateral) usually do not possess the bureaucratic flexibility to initiate these efforts. Their productive role is to support promising or proven efforts with expanded resource demands;

- A negative feature of linked institutions is that a proliferation may dissipate focus and lead to scarce manpower resources. Although a program may be proven successful, there is usually no indication of where and to what degree it can be applied again to ensure comparable success.

Limitations to Foundation Activity

A listing of obstacles to more effective involvement of private foundations in international health could be quite exhaustive. Below we describe only those limitations considered to be directly related to the principal areas addressed in this assessment.

Of the three international health fields – health, nutrition, and population – population by far has the greatest semblance of institutional leadership in generating new knowledge through linking together people and institutions, assembling information and disseminating it to relevant audiences, and facilitating the coordination of donor activities. The Population Council, Rockefeller and Ford Foundations, and others play important roles in this area. No comparable leadership exists in nutrition and health.

Most foundations have had to cope with significant reductions of resources caused by inflation and a diminishing number of entrants into the private philanthropy field. In addition, the complexity and high cost of work in the international arena discourage participation by foundations with limited resources. Such an erosion implies three reactions (not necessarily mutually exclusive):

- Restriction of the scope of foundation concern;

- Reduction of the intensity of existing program efforts;

- Dilution of the attention of smaller cadres of professional staff.

International programs, particularly those related to health, may be vulnerable to reduced resources, as most foundations do not concern themselves exclusively with international issues. Domestic needs are great and the sheer weight and immediacy of U.S. problems could lead to mistaken conclusions that private foundations should solve problems at home before worrying about those abroad.

In the opinion of most foundation legal experts consulted during this review, the 1969 Tax Reform Act has had a chilling effect on international work. Since 1969 the rate of formation of new foundations is believed to have declined. An often neglected consequence of the 1969 Act is the legal overhead that foundations must assume for international operations. Restrictions, complexity, and potential liability translate into greater legal requirements to support overseas work, and fears of legal entanglements in making grants to foreign organizations may have discouraged foundations from overseas operations.

The 1969 and 1976* changes in tax regulations have affected foundation program expenditures specifically through five major provisions: (1) an excise tax, (2) a mandatory payout requirement, (3) a "grassroots lobbying" restriction, (4) an expenditure responsibility provision which affects overseas grants, and (5) a declaratory judgment provision.

The question of expenditure responsibility directly affects overseas work. The Treasury Department has expanded a provision to assume that foundations may make grants to foreign organizations that have not received U.S. tax exemptions, but are considered to be organized and operated for charitable purposes. While foundations are in no way legally constrained from making grants to overseas institutions, they are required to legally determine whether their money is being spent for "exempt purposes" and ensure that the money is being spent for the purposes awarded. Thus tax laws direct that foundations assume certain liabilities with regard to their overseas financing. While such mechanisms can, and often do, prove cumbersome to the granting process, they provide a measure of protection against distortion of purpose.

The technical ramifications of the tax laws are complex and require much analysis. The Treasury Department continually analyzes adjustments in these laws and regulations. It will be important that any future analyses reflect more concern for international health.

Foundations concede that laws governing international liability are poorly understood and that liability laws within host countries are likely to vary considerably. The private sector, in the quest to develop and field test more effective technologies, could conceivably sustain substantial liabilities for malpractice, torts, and specific products as well as ethical problems. Liability may be encountered either via direct action or through grantee activities. However, liability laws are perhaps a more critical domestic problem. If this problem is solved, the mechanisms could be replicated internationally. Private foundations should encourage the study of means by which government could assist to reduce potential liabilities associated with domestic and international research.

---

*Tax Reform Act of 1969; Tax Reform Act of 1976 (P.L. 94-455).

Just as they have within the United States, ethical issues related to human experimentation abroad have become increasingly subject to public scrutiny. Questions about informed consent and transnational equality are highly sensitive.

We believe the basic rationale for any government policy and funding initiative in international health must be articulated clearly. Confusion over the purpose(s) of an international health initiative might reduce complementary foundation activities or impede their effectiveness. Government policy decisions might dissuade private foundations from associating with an effort that has foreign policy emphasis or that exhibits less than a purely humanitarian appeal.

Private Foundations and Their Potential Future Role in International Health

The declining involvement by private foundations in international health stems from a complex of restrictive economic, political, and cultural forces which are likely to yield only slightly in the near future. We have found, though, that government policy reforms and financial retrenchments within foundations have largely run their course.

Commitment of more public funds would assure foundations that useful private initiatives could receive sustained, long-term public support. We should note, however, that commitments of public funds, unless orchestrated carefully, could lead to a negative reaction: "If Government's going to do it, let's do something else."

We have noted how some of the largest foundations devote no funds to international health; some support domestic health exclusively. While improved domestic health is essential, a refusal to deal with international health ignores clear demonstrations of the interdependence of domestic and international health.

During the course of our assessment, we encountered a variety of opinions on a number of tax law provisions which affect private foundations and appear to constrain their international health involvement. These effects seem greater for foundations with fewer corporate assets.

Despite constraints, foundations have brought into being many of today's eminent population associations and institutions, such as the Population Council, the Population Association of America, and the International Union for the Scientific

Study of Population. We see in this history reaffirmation of the great need for institutional leadership in generating new knowledge, linking people and ideas together, and coordinating donor activities in nutrition and health for domestic and international welfare.

We have also found that only foundations with adequate professional staff are involved in international health. Smaller foundations could make a greater contribution to international health if they had access to staff advice and consultation. A consortium of international health experts might be created to better advise these smaller foundations. Thus foundation professional staff could be shared and located within any organizational entity. A consortium or endowment, as previously discussed, could make recommendations to foundations and other interested parties on international health initiatives. Consortium or endowment staff would constitute an academy of outstanding professional people knowledgeable in health research, education, services, and other matters.

Corporations: General Information and Brief Description of Involvement in International Health Activities in Developing Countries

U.S. multinational corporations afford social and economic benefits to foreign countries by establishing businesses in developing countries where they would not otherwise exist. These businesses provide capital, technology, and managerial skills, and offer employment. Their presence helps raise the level of wages and standards of living in developing countries. Multinationals provide substantial tax revenues which enable host countries to finance public programs and improve infrastructures. A detailed discussion of the corporation as manufacturer or seller of health products and services is presented in Chapter 5. This section focuses on the health activities of the corporation as employer and contributor to social welfare purposes.

Corporate Profits and Social Responsibility. The role of the U.S. corporation in dealing with international social problems is being questioned. A number of factors have created this climate. Corporations see profit making as the overriding motive of their business. They are interested in fulfilling social responsibilities primarily through philanthropic budgets. They are also aware of the need to reduce or prevent social, economic, and environmental costs arising from corporate practices, since they are subject to increased overseas nationalism and the threat of expropriation.

U.S. corporations perceive their primary role in developing countries as earning an adequate economic return on investment and developing technology. Developing countries which encourage corporations to invest and operate within their borders view the corporate role not only in terms of profit motives, but also in terms of interest in the host country's economic and social development, as well as potential assistance in increasing national self-reliance and productivity.

Developing countries understand the importance of the economic contribution of U.S. corporations; but because they view some aspects of corporate operations negatively, they often pose a serious hindrance to effective cooperation and negotiation. Often developing countries express either latent or obvious hostility toward the United States. With their strong sense of nationalism, they may tend to view corporate operations as one form of economic imperialism. There is also U.S. foreign policy: Such matters as détente, national security, or intelligence activities shape hostile attitudes toward U.S. business.

Developing countries expect U.S. corporations to meet their social responsibilities. The precise nature of those responsibilities and how they can be met in varying circumstances are difficult to pinpoint. In practice, countries and corporations must work together to delineate and perhaps negotiate ground rules. Often corporate health services complement the health services of the developing country; together they contribute to the progress of health care. While there are factors that seriously constrain U.S. corporations in the developing world, there are also possibilities for collaborative health services which may overcome much negative feeling.

What else do developing countries expect from U.S. corporations? Obviously, they expect compliance with all their laws and regulations. They require that operations be conducted within the policies and customs of the country. Successful relationships are generally founded on mutual understanding and respect. They are based on a clear understanding of the prerogatives and responsibilities of each party in any project.

In terms of their involvement in international health activities, U.S. corporations: (1) engage in manufacturing and selling health facilities, supplies, and services (see Chapter 5); (2) conduct research to improve technology and products (see Chapter 6); (3) provide health facilities, supplies, and services to employees and their dependents in a developing country; (4) participate in a host country's national or community health program (sometimes in cooperation with voluntary organizations); (5) pay for employee health services performed by others in the developing country; (6) provide or cooperate with other corporations to provide community health services; (7) contribute financial or technical assistance to local community health programs; and (8) contribute to nonprofit institutions which are engaged in international health activities (research, training, and services).

Developing Country Expectations. From the perspective of a developing country, there are both positive and negative aspects of U.S. corporate health activities. On the positive side, the country anticipates receiving equipment, supplies, services, and technology. The corporation finances or gives resources to research and development programs in the country. Often the corporation participates in the transfer of management and organizational principles appropriate to health services methods and systems. The country looks favorably upon the direct and indirect benefits of health programs on their economic development.

141

Nevertheless, there are negative aspects to corporate involvement in health care. For example, industrially related health services may compete with local health services. Clashes of technology, disputes about medical practice style, or disagreements about the organization of health services among the industrial services and local services may occur. Acceptance of contributions from the corporation may involve loss of control or a growing dependence on decision-making centers located abroad. From the corporate perspective, there is acceptance of the notion that profits and social responsibility are mutually consistent. This attitude is particularly valid with reference to good health, which may be achieved through preventive, environmental, and curative services. Good health reduces work-force absenteeism and therefore increases productivity. Good health and productivity in a community increase incomes, raise the standard of living, and expand product markets.

There are, however, other factors motivating corporations to become involved in international health besides the interrelationship of health and corporate economics. More often there is the corporation's self-interest in producing and selling products, or the corporation's self-interest in its employees' well-being and the impact of that well-being on their productivity.

Changing Corporate Perspectives. We understand from a variety of sources that the attitudes and activities of corporations with respect to overseas health services are changing. The traditional approach abroad has been to limit health-related activities to those required to support business interests. Consequently, there are some company-operated medical facilities which are as elaborate as those existing in the United States.

In the past decade or so, there has been a gradual shift from exclusively company-operated services to services with more of a community base. Occupational health services remained an in-house responsibility but nonoccupational medical care for employees, dependents, and others has been transferred to public or private facilities, usually with company-provided financial support and often technical backup.

More recently, in response to growing nationalism, there has been a gradual movement by some toward active collaboration between ministries of health and corporations to provide health care to the community. In these cases health facilities are operated jointly by the government and the corporation and serve community residents as well as company employees and their dependents. This close collaboration is welcome and should be encouraged by the U.S. mission.

In the past few years, there has also been an interest in moving toward even closer coordination of industrial health services with those of government and the private sector. In these cases, health care goals of the corporation are set in congruence with the national health planning goals of the host country and locally recruited staff are used whenever possible. Advantages include minimization of the discrepancy between local health services and those related to the corporation.

Moreover, corporate-linked health care often serves as an example of what is appropriate and achievable within a country. Finally, corporations tend to shift away from primarily personal health services of a curative nature toward greater emphasis on preventive services, including sanitation and industrial hygiene.

Limitations to Corporate Involvement in International Health

Corporate ability to do more in international health is affected by constraints created within the corporation, the host country, and the U.S. Government.

First and perhaps foremost, the corporation is greatly affected by the impact of the cost of providing health care on corporate profitability. In addition, the corporate hierarchy may feel that the host country's health needs should be taken care of by the host country itself to whom it pays taxes. Moreover, it often expects that some of the health responsibilities not attainable by the host country will be accepted by bilateral donors and international organizations. However, even if a corporation is interested in doing more, it may lack knowledge and understanding of what is needed in terms of health requirements.

The host country may not be able to present a full description of its health needs. Even with full knowledge of those needs, the host country may give priority to other social programs. And when it does give priority to health, its perception of specific needs may be different from that of the corporation. In addition, officials may not understand multinational corporate operations and may create constraints by imposing requirements on the corporation reflecting unique social, cultural, religious, economic, and political attitudes. Sometimes these obstacles may be exacerbated by the corporation itself which does not adjust to host country attitudes.

The U.S. Government also creates constraints by virtue of its activity as a business regulator and through its foreign policy. On the other hand, the government often serves as a catalyst for international health as a source of funds and a subsidizer of business.

Growth Possibilities for Corporations and International Health

The contributions of U.S. corporate overseas activity to international health could be enhanced if several conditions were changed which now negatively affect corporate financial returns, corporate image in the United States and overseas, and corporate flexibility.

Informal involvement of corporations in international health could occur through OECD, the United Nations, and other multilateral forums. Corporations should respond to host country or regional requests for assistance in health activities. The U.S. Government must, to a degree, be careful of intruding into corporate business activities.

A governmental task force with private-sector membership should be created to set up guidelines for U.S. corporations abroad with respect to their planning and provision of health services. We suggest that a survey be conducted to document the range of previous and current corporate activities in international health, and that this material be published as an inducement and guide to further corporate involvement.

Recommendations

- The United States should encourage greater cooperation between host governments and PVOs;

- The U.S. Government itself should establish an internal focal point for a closer partnership with PVOs. The following goals in allocation of funds to PVOs should be pursued:

  – Fewer governmental restrictions on where, when, and how PVOs should spend funds;

  – Less insistence on immediate, tangible results;

  – Shorter lead times on grants and contracts;

  – More freedom for innovation, less emphasis on standardization;

  – More grants and contracts to small PVOs;

  – Greater emphasis on people-to-people aspects, less use of funds as an arm for foreign policy;

- PVOs should organize consortia or federations, to make their views more effectively known to the government;

- The government should establish a National Endowment for International Health, to foster increased collaboration between PVOs and Federal agencies. It would stimulate financial support and provide technical and planning assistance for PVOs. It should be free of agency control;

- Government and private-sector guidelines should be established to encourage voluntaryism and self-reliance in host countries. Returning Peace Corps workers could perform this function in this country;

- Matching funds could be required from the U.S. Government or sought from host country PVOs for international health project development;

- U.S. Government and PVO efforts should be coordinated abroad; PVO contact with U.S. agencies in the field should be increased, and a PVO health focal point established in U.S. embassies;
- Information on worldwide PVO activity should be collected;
- The government should foster linkages between U.S. and foreign universities;
- Programs should emulate labor programs' self-help emphasis and stress on upward planning;
- Programs should emulate foundation programs' stress on use of developing country scientists, on cohesiveness of programs, and on field-based linkages;
- The Tax Reform Act of 1969 should be reexamined in order to consider ways to reduce its chilling effect on foundations;
- International liability should be clarified;
- A consortium of experts in international health should be created to advise smaller foundations on becoming involved in international health programs;
- The government should examine the role of corporations in international health and should work to minimize conflict with health needs and programs abroad. A survey of past and present corporate activity in this area would be part of such an examination;
- The government should encourage greater collaboration between corporations and host countries in development and implementation of health programs.

The chief need overall is for greater understanding by all of the groups discussed in this chapter of each others' current and potential roles. There should also be greater cooperation between groups to ensure a minimum of waste, duplication, and red tape, and a maximum of efficiency and achievement.

We believe a coordinated effort can accomplish more to increase the flow of information and collaboration between organizations, and between kinds of organizations, active in international health, thus encouraging more private-sector involvement in international health and development.

Chapter 5

Financial and Commercial Aspects of International Health

This chapter concerns the financing and promoting of international health trade. We shall review current responsibilities of U.S. Government agencies, present some policy and program issues concerning channels used to finance international health activities, and examine the role of the U.S. corporation in international health trade.

The U.S. Government and Financial and Commercial Aspects of International Health

Five Cabinet-level departments and one Cabinet-level office have responsibility for the commercial and financial aspects of international health and carry out their responsibility through coordination, administration, regulation, and promotion. These are Treasury; State; Commerce; Agriculture; Health, Education, and Welfare; and the Office of the Special Trade Representative. The responsibilities and programs of these departments constitute the bulk of Federal oversight of the financial and commercial aspects of international health in the United States. Several agencies, boards, councils, and foundations also play a role in special matters of international health. These agencies include the Inter-American Foundation, the Export-Import Bank, the Overseas Private Investment Corporation (OPIC), the United States International Trade Commission, and the Council of Economic Advisers. The concerns of the Cabinet-level agencies are set forth here to provide a perspective for the commercial and financial issues which follow.

The Department of the Treasury. The Treasury Department affects international health policy by formulating financial, tax, and fiscal policies for the Federal Government. Primarily through the Office of the Undersecretary for Monetary Affairs and specifically through the Assistant Secretary for International Affairs, Treasury monitors international health transactions and transfers. The Assistant Secretary for International Affairs advises and assists in the formulation and execution of international financial, economic, monetary, commercial, energy, and trade policies and programs. This office is divided into groups responsible for monetary affairs, developing nations policy, trade and raw materials policy, energy and investment policy, and research.

International health responsibilities per se are not assigned to any particular section of the Treasury Department, and some health-related issues would not routinely be considered by any of the Treasury offices. Existing economic and financial mechanisms for the management of domestic and international monetary and fiscal systems are not designed to deal with specific issues such as international health.

The Department of State. The State Department gives economic policy direction to international commerce. The Undersecretary for Economic Affairs and the Bureau of Economic and Business Affairs are responsible for coordination of foreign economic and scientific/technical policies and programs. Two other bureaus which have more direct responsibilities over international health and play a role in developing aspects of foreign commercial policy are the Bureau of Oceans and International Environmental and Science Affairs and the Bureau of International Organization Affairs.

The Department of Commerce. International health concerns in the Commerce Department consist of the direction and promotion of trade and commercial relations in health-related products and services. A Deputy Assistant Secretary for International Economic Policy and Research is responsible for developing broad departmental goals and policies of the Domestic and International Business Administration. The Assistant Secretary for Domestic and International Business promotes international business for the health sector and participates in a variety of other trade promotion efforts. The Assistant Secretary for Science and Technology oversees several agencies dealing with international health matters. These are the National Bureau of Standards, which sets standards for products and services; the Patent and Trademark Office, which formulates patent policy; and the National Technical Information Service, which is responsible for the exchange of scientific and technical information. The Commerce Department's Chief Economist shares responsibility for economic policy with other principal officers and oversees several statistical systems relating to international health. The systems are maintained by the Bureau of Economic Analysis and the Bureau of the Census. The Office of the Assistant Secretary for Policy participates in matters relating to international health on an "as needed" basis.

The Department of Agriculture. The Agriculture Department oversees a variety of health and health-related services as part of its responsibilities for marketing and for nutrition. The food aid (P.L. 480) responsibilities of this Department are treated in Chapter 7.

The Department of Health Education, and Welfare. HEW, primarily through FDA, engages in a variety of regulatory and research activities important to international health. The international regulatory activities of FDA have a significant bearing on criteria of health and safety. For example, FDA sets standards for imported food and enforces these through dockside inspections and detention of unsatisfactory commodities. To cut down on resources required for this kind of activity and diminish financial loss to food exporters, FDA has instituted programs to assist foreign governments in establishing systems of quality control, storage, processing, and shipment. The overall aim of FDA is to improve the quality of foods imported into the United States.

The Special Trade Representative. Authorized by the Trade Act of 1974, the Special Trade Representative has responsibility to both the President and Congress for the administration of all trade agreements entered into by the United States and serves as chief U.S. representative to each trade negotiation. The Representative also advises the President on matters related to major developments in international trade, policy objectives, trade strategies in multilateral negotiations, and other key issues such as tariff preferences for developing countries. Trade policy in international health goods and services falls under jurisdiction of this office.

Goals and Objectives of the United States in Financial and Commercial International Health Transactions

The United States can significantly advance its efforts to achieve an economically responsible basic human needs policy and a morally and ethically sound international financial and commercial policy by interrelating several key policy areas. International health should be directly considered in international finance and commerce policy. Financial and commercial thinking must take into account the paramount role of health in the area of international human rights and should allow for the unique character of health-sector resources. The coordination of these policy areas will constitute a major goal of this Administration.

With respect to international economic policy, the Administration has stated on record that U.S. remarks on this subject should be made only in the most careful and responsible manner (Blumenthal, March 9-10, 1977; pp. 15-16). Commitments made before international audiences should be strictly limited to those which America can and will sustain. Specific quantitative statements defining a financial and commercial policy in international health should be developed with full regard for this precept. The complexity of the issues and our present state of knowledge preclude the responsible setting of quantitative goals at this time.

However, we find the following general commercial and financial issues to be appropriate starting points for study:

- U.S. resources should be adjusted so that we can more effectively implement human rights policies abroad and provide low-income countries with health assistance to those most in need;
- U.S. resources should facilitate a greater role for the American health industry in balancing overall international resource flows and implementing resources policy;
- The United States should carefully evaluate international resource flow effects of domestic health policy decisions, particularly with respect to their international implications, and the health effects of international financial and commercial policies.

U.S. Policy and Program Issues in Financing International Health

Analysis of U.S. policy and program issues in financing international health can be extraordinarily fruitful if it attacks the key financial barriers to increasing international health activities and offers new insights into unconventional approaches to improving health. A study of the health aspects of international financial and commercial policy is critical since many public health theorists feel that economic development is the most effective means of improving health. The conceptual difficulty of this issue stems in part from a relative lack of inquiry into it. Generally, neither the health agencies nor the financial agencies of the U.S. Government have attached major importance to the topic. Their disinterest may be due to the precipitous rise in economic importance of the health industry in the United States and the notorious time-lag in foreign policy recognition of domestic health issues. There is also the lack of theoretical treatment of these issues. Useful conceptual frameworks for analysis of international health and U.S. economic practices do not appear to exist.

Three major considerations seem to us to be the most significant in developing a new financial and commercial strategy in international health. These are:

- Availability of financial resources for health status improvement in developing countries;
- Availability of health-related products and services through direct foreign investment or for import and export in international markets;
- Assessment and implications of impacts of other products and services imported or exported by the United States.

Each of these issues is discussed below in the context of the several mechanisms of public or private policy which might affect them.

Financing Health Assistance to Developing Countries. President Carter has stated repeatedly his intention of increasing U.S. contributions to development assistance. He has emphasized both human rights policies and human needs strategies in development. These policies include improved and expanded health, nutrition, and population assistance programs. Therefore, the U.S. Government should explore new and better ways to finance and channel health assistance to developing countries.

The selection of channels involves, in part, the commitment of other countries to devote more attention to improved health care. We believe they either possess sufficient leadership or can be provided with full encouragement from the United States to make such commitments. Financial decisions pertaining to health can be coordinated with other donor countries as well as multilateral institutions. These already possess the necessary interest and will contribute to the efficiency of a world program of development financing.

Developing countries have stressed their own approach to financing development assistance by calling for a new international economic order with revised terms of trade, increased concessionary assistance, and increased levels of industrial production in the developing countries. U.S. trade and development assistance policy should recognize the desires of recipient countries and respect their concerns and interests.

Different financing mechanisms have, of course, differing impacts on balance of payments and U.S. international trade. They affect implied U.S. Government commitments for long-term financing as well as implications in terms of type, quality, and effectiveness of U.S. control over assistance. Moreover, in the face of proposed rapid increases in health-sector financing, the absorptive capacity of alternative institutions and mechanisms and the impact of rapid expansion on quality and direction of programs become major issues.

The selection of financing mechanisms has been a major element of the foreign assistance policy debate for years. Amendments to and appropriations for the Foreign Assistance Authorization Act have regularly defined policy on allocations through alternative financial mechanisms. These discussions, however, tend not to be sector specific. Thus, while health-sector assistance should be consistent with international financial policy, the special natures of health-sector trade, health technology, and health-sector institutions may call for sector-specific financial mechanisms or patterns. In general, we suggest that overall U.S. policy for financing development assistance should reflect and accommodate differences among sectors. We have identified four mechanisms for health assistance to developing countries: private commercial enterprise; private, nonprofit institutions; bilateral health assistance; and multilateral health assistance.

Private Commercial Enterprise and International Health. Commercial transactions constitute the majority of U.S. international health activities. Such activity is particularly important to so-called "graduate" countries (those which by surpassing economic benchmarks lose their eligibility for bilateral or multilateral concessionary assistance) and to countries with high average per-capita income and inadequate health services. Foreign financing can facilitate the transfer of health technology and sharing of organizational and managerial abilities through joint U.S.-host country investment and through host country purchase of goods and services. Various methods by which the government can stimulate private health-sector involvement in developing countries are discussed below.

Private Nonprofit Activities in International Health. Because of their innovativeness, their links with local citizens, personal approaches, past experiences, and commitment to the development process, nongovernmental, nonprofit groups have a unique potential as resources for health assistance to developing countries. Often they are religious and charitable organizations providing health services abroad, or they may be organizations of health professionals, health institutions, cooperatives (especially health cooperatives), labor unions, foundations, and similar organizations. Quantitative information on the role of these organizations in international health is grossly inadequate for policy-making purposes, and we strongly recommend that it be improved.

These organizations may operate with host country financing; U.S. philanthropic donations of money, goods, and services; and in some cases, with U.S. Government support. Recently, however, private contributions to these organizations have not kept pace with the economy or even with inflation (Commission on Private Philanthropy and Public Needs, 1975). Therefore, we are anticipating the need for a U.S. Government stimulus to private financing and/or direct government support if the nonprofit institutional sector is to grow within the overall health assistance program.

The U.S. tax system currently affords a variety of incentives to nonprofit and philanthropic institutions. Similarly, AID provides support for private agency health activities through contracts, grants, and commodities (P.L. 480 foods).

The AID program channels direct support to 90 large AID-registered nonprofit organizations. Substantial numbers of small private voluntary agencies do not have the opportunity of benefiting from this assistance. Moreover, the public image of AID as a large bureaucratic government institution appears to discourage private, nonprofit organizations from joining in people-to-people programs to improve health. In Chapter 4 we have outlined in some detail a proposal to establish a National Endowment for Health (modeled on the one that exists for the Arts) to stimulate financial support and technical and planning assistance within the United States for private, nonprofit groups engaging in international health activities.

Bilateral Government Assistance for International Health. Several government channels finance health activities internationally. Bilateral assistance to developing countries in the health field is tied into the overall development assistance programs of each agency. Although AID is the main agency in this kind of assistance, there are other minor actors. Peace Corps projects form a relatively small part of the development assistance pie in the financial sense, partly because the true economic cost of volunteer services is largely borne by the volunteers themselves. Bilateral development assistance through DOD, HEW, and other agencies has been minimal in the past; financial and economic evaluation of such channels will depend on the specific mechanisms chosen for future programs.

The work of AID is described at length in Chapter 7. Further expansion of the role of health within AID depends upon the outcome of the general debate over bilateral versus multilateral development assistance financing. An important point is that despite criticism of AID management, AID ranks first and foremost among bilateral donors lending specifically for primary health care. In addition, since its lending is largely tied to the purchase of U.S. services and commodities, our balance of payments becomes more favorable when markets for our commercial goods and services are created in developing countries.

AID finances health-related assistance through a variety of mechanisms, including reimbursable assistance, development assistance grants and loans, supporting assistance grants and loans, and P.L. 480 funds. AID also designates assistance-financing for private-sector institutions, particularly through commercial technical assistance contracts, commercial commodity purchases, and grants to private voluntary and educational institutions.

A major but unavoidable difficulty in administering AID programs involves the establishment of an appropriate balance between in-country and U.S. expenditures. AID programs also must heed a congressional restriction that host countries are required to fund at least 25 percent of the total amount of U.S.-backed project investments.

Multilateral Assistance for International Health. The two major channels for multilateral assistance for international health are the U.N. agencies and the international funding institutions. Before we discuss their roles, however, we should mention the International Monetary Fund (IMF) "special drawing rights" (SDRs), created as international reserve assets to supplement gold and currency and used for international settlements. The primary function of these special drawing rights is to foster global economic strength by helping nations meet their financial liquidity needs. Developed countries receive about 75 percent of each SDR allocation because of their quota within IMF. Developing countries, however, are pressing for increased allocations linked specifically to development assistance.

We do not believe SDRs should be used for financing health-sector assistance for several reasons. Adding development financing to the regular function of SDRs weakens an ability to respond to liquidity needs. In the unlikely event that SDR aid links were approved by national legislative bodies, the side effects could be serious inflation or cutbacks of bilateral and multilateral aid to developing countries. Even if this less desirable assistance were approved, it would not be effective for a number of years.

U.N. Family Agencies. We recommend that these agencies should not be considered as major channels for financial assistance, but should continue to serve as technical assistance and coordinating agencies. Earlier we argued that the financial contribution levels for each of these agencies should be determined individually.

Development assistance channeled through multilateral agencies is generally not tied to the purchase of U.S. goods and services. Consequently, the U.S. balance of payments impact of these agencies is calculated as the difference between unilateral transfers through our contributions and agency expenditures in the United States. This balance differs significantly among agencies. PAHO, for example, with headquarters in the United States and dealing exclusively with Western Hemisphere health matters, necessarily expends a large portion of its budget in this country. U.S. support of PAHO therefore is probably reflected in a positive balance of payments. Other U.N. agencies tend to have negative impacts on our balance of payments, in some cases approaching the full amount of U.S. contributions.

Congress and the Executive Branch have encouraged the U.N. family agencies to budget development assistance financing through U.N.D.P. and to assign other activities to regular budgets. From an international health strategy perspective, we find this idea desirable, since it would facilitate coordinated analyses of the health assistance activities of the various U.N. agencies and of the relationship of health to overall U.N. development assistance. Restricting WHO, PAHO, and other U.N. agency regular budget financing to those international health functions of common interest to all countries would facilitate analysis of the cost-benefits of U.S. contributions in terms of domestic health policy.

International Financial Institutions. The proportion of IFI projects containing health components is growing. Of a total of 1,400 World Bank projects begun since 1946, 298 included occupational safety and health measures. These projects are still closely watched by the Bank. Similarly, 115 projects with health aspects are currently under active supervision by the Inter-American Development Bank; 14 health-related loans are financed by the Asian Development Bank.

The World Bank has recognized that strategies of the 1950s and 1960s were not bringing appreciable benefits to the poorest majority in many developing countries. As a result, the Bank suggested greater emphasis on direct action to increase the participation of the poor in economic development and ensure their equitable share of the benefits in their countries.

Since most of the very poor live in rural areas, the Bank has displayed a rural development orientation which, in turn, has led to expanded agricultural operations. More recently, the Bank's attack on absolute poverty has been extended into urban areas, where assistance has taken the form of identifiable urban projects and a modified approach to lending for industry transport and development finance companies.

Although IFIs have become increasingly oriented to basic human needs and are increasingly involved in health and the health effects of project lending in all sectors, most IFIs do not lend for health projects alone. Rather, health is interpreted as an integral part or a by-product of more general development strategies.

There is a normal process by which the United States can recommend changes in lending patterns. The United States can request an internal assessment of all past and ongoing sector activities. The World Bank has not conducted a review of health policy since 1974; health policy does not include population and nutrition activities, which are considered in separate strategies. There have been no health policy discussions in the Inter-American Development Bank since 1967. The Asian Development Bank does not have an explicit health policy, although health is a factor in some of its investment lending decisions. After an assessment has been completed, and only then, can policy directives be issued.

New initiatives in international health will be impaired if health professionals are not seriously involved in program evaluation and in the definition of U.S. policy towards international financial institutions. Infrastructure investments have significant environmental and health impacts and should be evaluated by people who are specifically oriented toward human needs impacts of economic programs. As IFIs move more assertively into human needs areas, health expertise for new programs will certainly be needed. It is our impression that the U.S. Government currently evaluates IFI programs on the basis of information generated by the banks and those reviews are conducted by nonhealth professionals in government agencies. Although we judge the standards of the banks to be high, we find the lack of technical review by the U.S. Government an unwarranted shortcoming.

U.S. representation differs between the IFIs and other U.N. organizations. Whereas U.N. agencies include all member nations, each having an equal voice and vote, IFIs include recipient and contributing nations, with votes largely proportional to contributions. Moreover, most of the IFIs are regional rather than global in scope.

The IFIs appear to have been less subject to East-West differences than other U.N. agencies, although the situation may change if Communist countries increase financial contributions to development assistance. IFIs obviously serve as forums for North-South discussions, and such dialogue could be constructive because of the very nature of the IFI programs. IFI debates on different approaches to development assistance among donor nations also have an impact on health assistance and are related to larger issues of international economics. Because of this and because of its multilateral nature, effective participation in the IFIs requires a combination of diplomatic, financial, and health expertise.

The Carter Administration definitely favors increasing contributions to international financial institutions. Recently, the Secretary of the Treasury stated that our concept of "development" has now broadened to the point of outlining specific objectives – satisfaction of basic human needs, better distribution of income, reduced rates of unemployment, and greater agricultural productivity. Health can now be accorded greater value as a component of aid (Blumental, March 9-10, 1977; pp. 15-16).

The United States should urge the IFIs to re-examine their health strategies and should support IFI policies directing a significant portion of lending to basic human needs activities. A reasonable amount of those funds should be allocated to the development of integrated health services to meet basic human needs.

A Mixed Strategy for International Health Assistance

We believe there is a need for a mixed strategy for financing U.S. health assistance to developing countries. The United States should explore and use commercial, private, nonprofit, bilateral, and multilateral channels to achieve this goal. Financing channels may be improved through incentives for international health involvement, the use of a health endowment, and an analysis of health-sector strategies by the IFIs.

The key issue is the appropriate allocation of resources among financial mechanisms. Ideally, we believe "zero-based analysis" can be best used to investigate the optimum allocation of government resources among subsidies and incentives to the private sector, allocations to bilateral assistance, and contributions to multilateral organizations. Moreover, we should involve host country representatives in budgetary allocation discussions at the country-specific level and donor and recipient communities at the multilateral level.

Such steps are immediately possible only for allocations between bilateral and multilateral channels. In the short term, it appears clear that the absorptive capacity of the bilateral channels in the health area is greater than that of either U.N. agencies or IFIs, and the most rapid, immediate rate of increase should be in AID-funded health assistance. If the IFIs accept strategies calling for integrated health assistance programs, with implied delay of the strategy review process, they too can rapidly expand health assistance programming.

From a U.S. economic perspective, it appears prudent to select those channels of foreign assistance which do not have a negative impact on U.S. balance of payments.

Developing countries generally prefer assistance which provides direct capital transfer and allows them to use those funds to stimulate local industries. When they must import goods, they also prefer unrestricted assistance so that they may shop freely on world markets. Development assistance must be carefully planned to reconcile the legitimate, often competing viewpoints of donor and recipient.

We strongly recommend that State, coordinating with Treasury, Commerce, and HEW, obtain the relevant information and frame health-sector assistance allocation decisions (including use of commercial and private, nonprofit channels) in a zero-based analysis framework. The principal focus of this effort should occur as an assessment of health assistance financing in each recipient country. The regional and world aggregates should be prepared from country-specific data; the report would be a part of the foreign assistance budget submission to Congress each year. We believe that only State can serve, in this case, as a neutral arbitrator among the development assistance, commercial and multilateral agencies involved in health assistance to developing countries.

The Role of U.S. Corporations in International Health

A strengthened government and private-sector partnership in the distribution of services, know-how, and equipment worldwide is desirable because such a strategy can promote the most efficient utilization of all available health resources both in terms of costs and numbers of individuals and societies which can be aided. There are two major reasons for emphasizing such an approach.

By virtue of the size of the U.S. market, its massive investments in research and development, and its high levels of productivity, the U.S. private health industry has developed an advantage in the production of health services and products second to none in the world. The benefits, in terms of the availability and cost of the newest technologies, can be exported throughout the world.

Nevertheless, this industry is restricted by the simple matter of limited resources. No matter how much the United States commits to improving international health, our efforts will not be enough to accomplish everything we would like. The government therefore must ration its support, concentrating its efforts in areas of greatest need; it will have to rely on the resources of the private sector to reach upper- and middle-income societies.

For us to enlist the private health industry in a concerted effort to raise the level of international health, we must first understand the nature of industry involvement and industry problems faced in establishing and expanding foreign markets. Only with this understanding can we begin to devise strategies for encouraging greater involvement. Such strategies necessitate U.S. trade and commercial policy considerations. Until now, the goal of improving international health has not figured in U.S. international economic policy; however, if the private sector is to become a channel for new health policy objectives, then U.S. international economic policy must also reflect health considerations.

Scope of U.S. Corporate Activity in International Health. U.S. corporations play a major role in international health as producers and exporters of health products and services ranging from hospital construction to medicines. Through direct overseas investment, they also serve as vehicles for the transfer of health technology.

Trade in health-related goods and services is a significant part of U.S. international commerce (U.S. Department of Commerce, December 1976). Medicine and medical supplies are not the only forms of international exchange. Other important elements are health insurance and health facility management, as well as operations or construction services. Products required for health delivery services should also be included, such as insecticides and pesticides for vector-control programs, vehicles and communications equipment, and food processing equipment.

U.S. Trade in Health-Related Goods. Health-related manufacturing activity contributes favorably to the U.S. balance of trade and accounts for significant aspects of technology transfers by U.S. industry (see Table 5). The top grouping of commodities and countries shows that the United States exported a total of $1.9 billion in medicines and medical supplies in 1976, while importing only $0.7 billion. The next two groupings furnish some detail as to the distribution between medicinal items traded as bulk and those traded as finished package materials. The last grouping gives the distribution of health-related hardware including most medical support equipment, except nuclear medical equipment and dental and optical goods. (In 1976 about $25 million worth of nuclear-derived medical products were exported, all to high-income countries.) These three groups of commodities produced a positive trade balance for the United States in 1976 of $1.144 billion.

Table 5. U.S. Exports and Imports of Medicines and Medical Supplies, and Countries of Destination and Origin Grouped by 1976 Income Levels

Commodity and Country Grouping	U.S. Exports ($ Millions)	U.S. Imports ($ Millions)
Medicines and medical supplies, total	1,861	717
High-income countries	1,242	639
Middle-income countries	238	14
Low middle-income countries	294	41
Low-income countries	71	7
Communist areas	16	16
Drugs and other medicinal chemicals in bulk, total	338	182
High-income countries	237	154
Middle-income countries	48	6
Low middle-income countries	44	16
Low-income countries	6	(*)
Communist areas	3	6
Medicinal and pharmaceutical products, total	996	269
High-income countries	619	229
Middle-income countries	136	8
Low middle-income countries	180	20
Low-income countries	52	3
Communist areas	9	9
Medical instruments, x-ray and other medical apparatus, total	527	265
High-income countries	386	256
Middle-income countries	54	1
Low middle-income countries	71	4
Low-income countries	12	4
Communist areas	4	(*)

*Less than $500,000.

Note: All countries other than the Communist areas are grouped by level of 1973 per capita GNP, as follows: High income, over $2,000; middle income, $1,001-2,000; low-middle income, $301-$1,000; and low income, $300 or less.

Source: Bureau of International Economic Policy and Research, Domestic and International Business Administration, Department of Commerce.

160

Table 5 (Continued)

Countries in Descending Per Capita Order — 1973

High Income: **$2,001 per capita and above**	Kuwait, United Arab Emirates, United States, Switzerland, Qatar, Sweden, Canada, Federal Republic of Germany, Denmark, Iceland, Luxembourg, Norway, Belgium, France, Australia, Netherlands, New Zealand, Japan, Finland, Libyan Arab Republic, Austria, United Kingdom, Israel, Italy, Ireland
Middle Income: **$1,001-$2,000 per capita**	Greece, Singapore, Spain, Argentina, Venezuela, Saudi Arabia, Netherlands Antilles, Cyprus, Hong Kong, Portugal, Gabon, Trinidad and Tobago, Malta, South Africa
Low-middle Income: **$301-$1,000 per capita**	Barbados, Jamaica, Uruguay, Lebanon, Panama, Bahrain, Mexico, Iran, Surinam, Iraq, Oman, Brazil, Chile, Costa Rica, Belize, Republic of China, Fiji, Peru, Turkey, Algeria, Malaysia, Nicaragua, Dominican Republic, Guatemala, Angola, Tunisia, Colombia, Rhodesia, Zambia, Guyana, Mauritius, Papua New Guinea, Paraguay, Republic of Korea, Syrian Arab Republic, Ecuador, Ivory Coast, Mozambique, El Salvador, People's Republic of Congo, Jordan, Swaziland, Honduras, Morocco, Liberia
Low Income: **$300 and below per capita**	Ghana, British Solomon Island, Philippines, Senegal, Thailand, Cameroon, Arab Republic of Egypt, Bolivia, Botswana, Nigeria, Mauritania, Togo, Kenya, Central African Republic, Sierra Leone, South Vietnam, Madagascar, Uganda, Zaire, The Gambia, Haiti, Indonesia, Sudan, Tanzania, India, Pakistan, Sri Lanka, People's Republic of Benin, Guinea, Malawi, People's Democratic Republic of Yemen, Lesotho, Niger, Yemen Arab Republic, Afghanistan, Ethiopia, Nepal, Bangladesh, Burma, Burundi, Chad, Somalia, Cambodia, Mali, Rwanda, Upper Volta, Lao People's Democratic Republic
Communist:	Democratic Republic of Germany, Czechoslovakia, Poland, U.S.S.R., Hungary, Bulgaria, Rumania, Yugoslavia, Mongolia, Cuba, Albania, Democratic Republic of Korea, People's Republic of China, Democratic Republic of Vietnam

Source: World Bank. World Tables 1976.

U.S.-based pharmaceutical firms provide over one-third of the free world's sales of prescription drugs. However, less than 20 percent of their foreign sales are exported from the United States; the principal amount is produced overseas by foreign subsidiaries (see Figure 9). The reasons why U.S. health firms have elected to manufacture abroad rather than to export vary from country to country. The most important reasons include the existence of foreign tariff and nontariff barriers to trade – highly protective tariffs and foreign laws or policies that make it difficult or impossible to market a product within a country unless it is produced there – and easier servicing of foreign customers, as well as competition. The establishment of overseas manufacturing affiliates, in turn, encourages the export of U.S.-produced ingredients, bulk materials, parts, and equipment. Since many foreign markets would not be accessible except through local manufacturing of final-dosage-form products, the effect of this foreign investment has been to increase U.S. employment and sales.

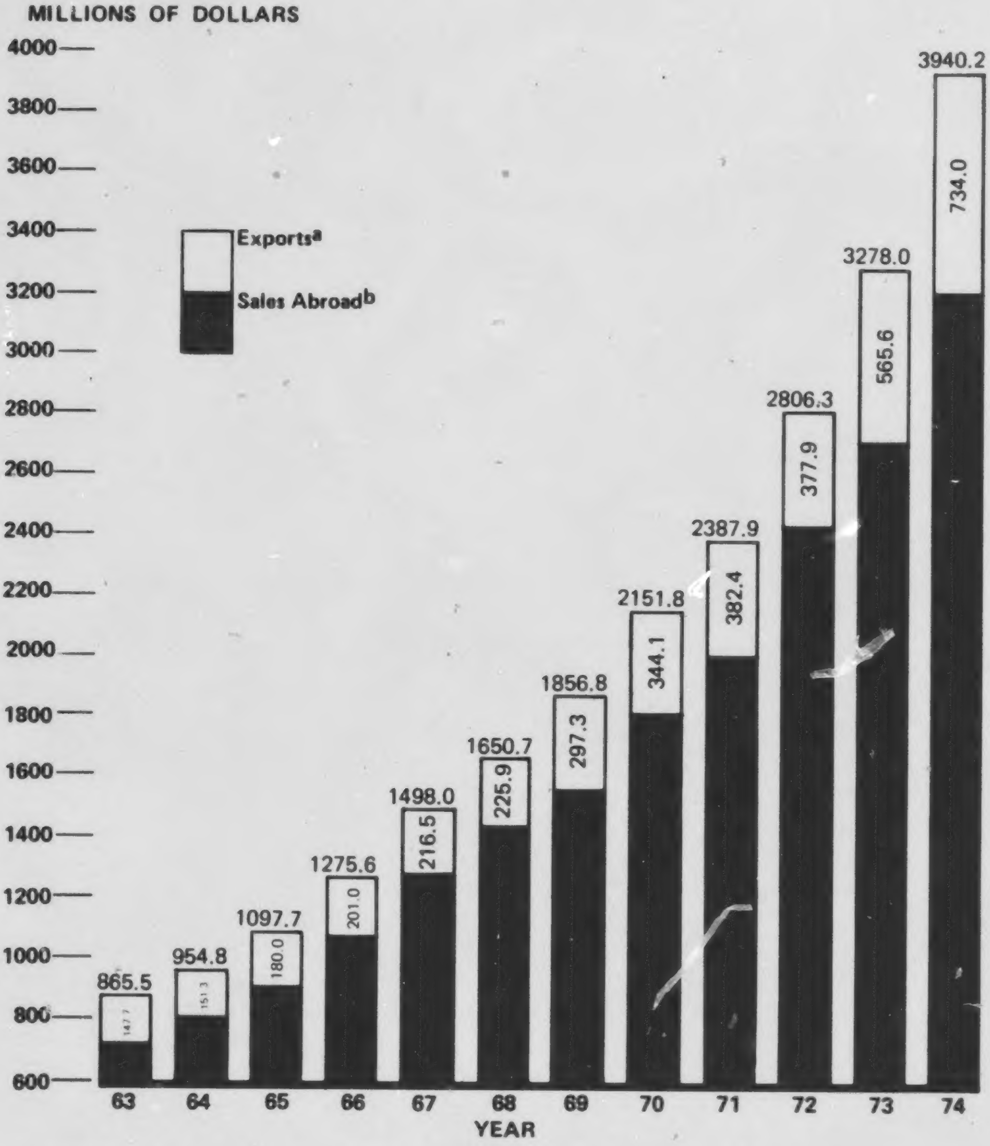
Host countries, especially the more developed in the developing world, have benefited substantially by the transfer of modern scientific, technical, managerial, and distributional skills associated with direct investment by U.S. pharmaceutical firms. Worldwide operations also enable pharmaceutical firms to spread corporate overhead, research, development, and other indirect costs over a larger base, resulting in lower average unit costs both in the United States and abroad. Prior to 1976, overseas sales of pharmaceuticals by U.S. firms grew faster than domestic sales for several years and, according to the Pharmaceutical Manufacturers Association, now account for 40 percent of total U.S. pharmaceutical sales. The net income from U.S. trade in medicinal and pharmaceutical drugs and chemicals in 1976 was approximately $750 million.

The sale of medical devices and diagnostic products overseas is increasing rapidly, contributing approximately $262 million in net additions annually to the U.S. balance of payments. New medical supply and equipment technologies are introduced by U.S. firms at an ever-increasing rate. Discoveries in this area are extremely difficult to evaluate in terms of global desirability. The decision to purchase such devices and products requires specialized knowledge of their application and use that generally is available only from a few experts. In developing countries especially, these experts are often representatives of industry itself.

Trade in Health-Related Services. Unlike the trade in health products which grew as did other aspects of international commerce, the so-called health services* are not measured systematically in an international statistical series. No trade association specifically represents the international interests of firms providing such services and few, if any, public policies or standards have been formulated to guide the international flow of these services. Their importance in trade, therefore, is difficult to assess precisely. Consequently, these services are rarely addressed in international economic theory.

**Note:* For purposes of this discussion, this group of activities includes: health facility construction, health-related management and technical assistance, and direct service by health practitioners.

Figure 9. Foreign Sales of Ethical Pharmaceuticals by U.S. Firms, 1963-74



[a] "Exports" includes shipments to subsidiaries abroad as well as exports to nonaffiliated firms.

[b] "Sales abroad" refers to sales in a foreign area by subsidiaries or other corporate operations adjusted to eliminate double-counting of intra-firm transactions. Also excluded are sales outside the United States by foreign-owned firms which have subsidiaries in the United States.

Sources: Published Pharmaceutical Manufacturers Association (PMA) survey reports.

Growth of International Health Commerce

The involvement of health-related industries in international operations has produced some domestic and overseas public controversy. In many instances this has affected the ability of these industries to develop overseas markets and operations. Sometimes, the sheer size of U.S. health-product trade and investment levels is perceived as politically and economically threatening by foreign leaders who believe their country to be subjected to a dependence on foreign sources of supply and to limitation of opportunities for local industrial expansion. In addition, more subtle and complex problems arise from the way health products are manufactured, transported, advertised, sold, and used in overseas settings. Such issues are important because they affect both the ability of industries to develop overseas markets and the actual quality of health care we may be trying to help other countries achieve.

Price Controls on Health Supplies. Foreign governments often control the prices of drugs. Because of this, prices for the same drug may vary among countries as multinational firms producing these drugs strive to achieve acceptable returns on their investments. One effect is that consumers in some countries subsidize the purchase of drugs in other countries. The degree to which these subsidies exist and benefit the truly needy should be explicitly understood and related to U.S. international health and trade policies. The recent U.S. experience with domestic price controls, whereby products were either discontinued in the United States or sent to markets overseas where there are no controls, illustrates one undesirable situation. We should attempt to communicate our experience to countries considering similar price controls.

Product Research, Development, and Pricing. U.S. pharmaceutical manufacturers have developed drugs which they believe are effective for the treatment of tropical and other diseases common to developing countries. The prices of some of these drugs, however, exceed what individuals in developing countries can afford. Some critics contend that private industry lacks real interest in creating and marketing inexpensive drugs for diseases predominating in developing countries.

WHO emphasizes the need for more research and development of new drugs to be offered at less cost for more widespread use. The manufacturers maintain that to the extent some drugs are beyond the reach of these low- or no-income populations, governments should, with their own funds or with foreign assistance, make them available for widespread use.

A Viable Patent System. A longstanding U.S. view of patent policy is that an inventor or developer should have a chance to recover costs of new product development and make a profit. Currently, some developing countries sometimes disregard patent laws. Their attitude limits manufacturer motivation since it reduces the chances of adequate cost recovery. Proper patent protection could induce the private research and development community and other related industries to create new products so desired by developing countries.

Certain consumer advocate groups maintain that compulsory patent licensing is desirable in developing countries to decrease the price and increase the dispersion of health-related goods. Manufacturers, however, argue that compulsory licensing would inhibit research because it lessens the likelihood of recouping investment. The U.S. Government should, in any case, establish a continuing review of how patent laws affect international health activities, particularly in developing countries.

Market Development. The U.S. Government can assume a major role in developing markets abroad for the sale of U.S. health-related goods and services. Information on the needs for these goods and services in developing countries and on the planned and projected levels of expenditures, as well as information on market structure and foreign competition, can be invaluable to American firms (especially small- and medium-sized companies with international affiliates) wishing to enter foreign markets in developed countries, Communist nations, Organization of Petroleum Exporting Countries (OPEC), and other developing nations.

In 1975, 60.2 percent of total U.S. exports went to developed countries (Canada, Western Europe, Japan, Australia, New Zealand, and the Republic of South Africa). Somewhat less than the two-thirds of health-related U.S. exports went to high-income countries in 1975. While trade with developed countries has been growing slightly less rapidly than that with developing countries, such trade will remain in the foreseeable future the major focus of international commercial health policy.

Although it started from a very low level in the 1960s, total trade with Communist nations has been expanding rapidly. Major efforts should be focused on expanding health trade with these nations; such action would be appropriate under the recently signed Helsinki Agreement. The U.S. public and private sectors should discuss bilateral opportunities with individual Communist nations for exhibitions, trade fairs, or other mechanisms of exchange.

The OPEC members appear to present special challenges to the development of international health trade. These countries, especially Arab members, have health conditions typical of developing nations but with high incomes. They are expected to require assistance for their investments in health resource industries (academic health centers, research and development institutions, health supply manufacturing plants, and so on), in health service institutions (hospital and ambulatory facility construction and equipment), and actual sale of health services (staffing and operating facilities). These countries will probably accept the full spectrum of public and private channels for commercial exchange.

Developing countries are least represented among exporting and importing nations in health commerce (on a per capita basis). Lack of funds, skilled personnel, technologies, and health services delivery systems limit health trade. To deal with such market imperfections in the short term, various national policies have been enacted by the governments of these countries.

Several governments in Latin America, for example, have recently instituted restrictions on the types of contracts that American companies can negotiate in their countries. In Pakistan, law restricts production of pharmaceuticals to generic drugs only. Moreover, in many countries tariff and nontariff barriers to trade frequently require companies to manufacture in the developing countries themselves, if they are to participate in their markets. While policies like this were initially thought to be a constraint to American industry involvement, U.S. companies have continued to work in such countries.

The State and Commerce Departments, as well as American commercial institutions, can assist in improving market opportunities for U.S. health-related industries. For instance, government representatives can introduce private- and public-sector officials to appropriate colleagues in the country where sales are to be made and inform them about U.S. capabilities available to these countries. These officials, in turn, can similarly represent American commercial interests abroad. A specific element of health industry representation involves trade fairs and other major promotional activities. State, USIA, Commerce, and other U.S. agencies should continue to actively seek such opportunities to promote the sale of American health supplies. The U.S. Government, under the direction of the Office of the Special Trade Representative, can also continue its current efforts to reduce or remove the tariff and nontariff measures which impede the flow of internationally traded products. These efforts are being made in conjunction with other trading partners at the current round of multilateral trade negotiations held under the auspices of the General Agreement on Tariffs and Trade (GATT).

Trade Processes. Appropriate trade processes in health goods and services must be encouraged and can be facilitated with an understanding of the market structure. Among the trading partners of the United States, there are many countries which cannot finance their purchases of health goods and services without assistance. The problem is to encourage foreign-financed purchases whenever they appear suitable to a country's health or its economic and political situation while ensuring the relevance of such trade to a basic health needs policy.

Businessmen interviewed during this assessment commented on the reluctance of some U.S. firms to enter fully into international commerce. According to them, the hesitation of these firms is based on a lack of familiarity with international trade, feelings of relative disadvantage with respect to more experienced competitors, lack of information, and a prevailing attitude of uncertainty in the industry.

Market research, information, and intelligence are fundamental in making decisions for health trade. While multinational corporations have sophisticated market research operations, many small- and medium-sized firms do not. The U.S. Government could provide a major economic development service for promoting foreign purchases; it should offer timely and accurate market information on health product markets. Similarly, the U.S. Government could strengthen its support for small feasibility studies for private-sector investments in health industries which, if successful, would repay the U.S. Government's contribution to the study.

Disseminating Information on U.S. Technology. The U.S. Government has been assisting U.S. medical equipment and supply manufacturers to inform foreign medical personnel of the latest advances in treatment and procedures. They have done so through medical seminars, trade missions, and commercial exhibitions with technical sessions since the 1960s. In the 1970s, catalog shows and a new product information service were added.

The medical profession, through its various societies, organizes hundreds of medical meetings, conferences, and symposia annually. There are also hundreds of medical periodicals devoted to disseminating medical knowledge.

One example of an event organized by the U.S. Department of Commerce was an exhibition held at the U.S. Trade Development Center in Bangkok, Thailand, in 1968. The Commerce Department estimated that about 75 percent of Thailand's medical leaders and decision-making personnel for medical equipment attended this event – over 1,500 persons. Forty-four U.S. companies exhibited their medical and hospital equipment, supplies, and pharmaceuticals.

The U.S. Government should do more to promote the dissemination of medical information and knowledge, and to help make such material more applicable to developing country health problems, through both private and public channels. In that regard, the following should be pursued:

- Sponsor more medical seminars, missions, and exhibitions through the Office of International Marketing, U.S. Department of Commerce;
- Encourage U.S. professional societies, medical journals, and others to mount campaigns to obtain foreign-affiliate members and subscribers (some already are doing so);
- Encourage leading foreign medical professionals to attend some of the many U.S. medical conferences or exhibitions;
- Mobilize the resources of the U.S. National Library of Medicine in Bethesda to provide more information overseas;
- Arrange a health trade fair or exhibition of U.S. products and health-related technologies between countries.

Raw Materials Supplies. International commerce in the raw materials of drug production is important to developing countries as a source of hard currency and to developed countries as the means of producing various drugs. Two examples illustrate these needs.

A few years ago, interruption of poppy production by Turkey (at the behest of the United States), adverse weather conditions in India, and Soviet purchases in the international opium market resulted in a shortage of opium and threatened the supply of opium-containing drug products in the United States. This necessitated a release of opium from the U.S. Government stockpile. Although there is no question that the United States could produce enough opium to meet its own needs, a high-level decision to continue dependence on foreign sources has been made primarily in consideration of international relations and for the maintenance of "moral leadership" by the United States to discourage widespread production of opium.

A considerable international supply of drug precursors is derived from animal products – for example, those from the pancreas and pituitary glands of animals; some of these may be useful in the treatment of the elderly. This supply may become increasingly important as an expanding older population in developed countries creates a growing demand for drugs derived from these materials. Demand will also increase as larger numbers of older people in developing countries gain access to modern medical care that will be using these sophisticated drugs.

Since issues surrounding raw material transfer, acquisition, and use with respect to drug products are becoming more complex, we suggest that the U.S. Government carefully review existing policies. The dimensions of such a review should, to the extent possible, include studies of furthering development objectives among cooperating countries while meeting U.S. strategic needs for reliable raw material supplies.

Trade Financing. Numerous financial barriers constrain American health trade. If policies were more flexible, the available trade financing mechanisms, such as OPIC and the Export-Import Bank, could be more effective in promoting the U.S. health industry.

OPIC is specifically chartered to promote investment by U.S. firms in developing countries. We suggest that health investments are "particularly developmental," and should be strongly promoted by OPIC. OPIC provides loan guarantees to private lenders, direct lending, and insurance to U.S. firms for investing in health-sector industry abroad.

In 1977, OPIC insured some 89 projects totaling $332 million in 35 different countries. OPIC is generally an excellent vehicle for encouraging expanded investment. We propose that OPIC have a strong, reliable, and continuing program to encourage investment by U.S. health-sector industry abroad.

The Export-Import Bank also plays a major role in providing financial incentives to increase exports. The extent of this role is demonstrated by FY 1976 expenditures of $36.7 million in loans, insurance, and guarantees for exports of U.S. biomedical equipment, supplies, and health-facility construction materials. This sum, however, covers only a small proportion of all health-related exports and therefore the Export-Import Bank might significantly increase its efforts to provide financial incentives to health-related exports.

Appropriateness of International Health Commerce. Governmental activity in stimulating U.S. international health commerce should be complemented by efforts to ensure that these activities appropriately serve the basic health needs of recipient populations. Many charges have been made in the past that U.S. health technologies (products, methods, and services) sold abroad were too advanced, improperly advertised, inappropriately labeled, deficient in quality, outdated, or otherwise inappropriate to the needs of a given country. Such abuses probably characterize only some of our commercial involvement in the developing world. However, before we encourage further stimulation of this involvement, a better understanding of industry's impact must be developed and such abuses dealt with. We suggest that areas of further examination might be product labeling, product marketing, and health and environmental effects of international trade.

Product Labeling. Corporations label products differently in the United States and in developing countries. The labeling of a drug abroad sometimes has more "indications for use" or fewer precautions about side effects than the same drug is required to have in the United States. Such labeling may result in inappropriate use of certain drugs. The issue has been widely publicized and it would appear that some significant abuses have occurred in the past. However, the situation is explained partly by very strong drug industry regulation in the United States and partly by real differences in drug indications among relatively affluent and poor populations. The U.S. Pharmaceutical Manufacturers Association has adopted, as has the International Federation of Pharmaceutical Manufacturers Association of which it is a member, a position accepting the responsibility of drug manufacturers to supply information consistent with the body of scientific knowledge and medical practice pertaining to their products. Continued vigilance to detect, publicize, and prevent any abuses in product labeling should be combined with encouragement of corporations to voluntarily maintain high ethical standards of advertising and labeling.

Product Marketing. Marketing practices differ throughout the world and vary over time in the health industry. Infant formula provides an instructive example because of the controversy generated over marketing approaches used by U.S. firms or companies of other nations. Since only a small fraction of the population of developing countries has the wherewithal to buy sufficient formula to nourish babies adequately and to prepare formula hygienically enough to avoid infectious disease, the appropriateness of widespread use of such products in developing countries has been questioned. U.S. advertising practices in developing countries which have been questioned include:

- Advertising through mass media and poster billboards;
- Mothercraft nurses who distribute free samples of formula while offering advice on child care;

- Promotion of formula feeding to professionals through medical journals, sponsorship of conferences, provision of free samples, pamphlets, and other medical facilities.

There is no official U.S. policy on the matter but there has been considerable interest in these issues both in the Executive and Legislative branches.

The pharmaceutical industry itself has adopted several self-regulating codes through its trade associations which encourage voluntary compliance with "ethical practice" standards. In general, these codes prohibit mass-media advertising. Emphasis in marketing is shifting to professional audiences, and the use of mothercraft workers appears to be diminishing. However, some companies have refused to join industrywide associations for developing codes, claiming possible liability under antitrust statutes.

The U.S. Government could adopt policies related to product marketing, such as:

- Examination of its own aid efforts to make sure that U.S. programs strongly support and foster the use of appropriate health practices;
- Assistance to developing countries for the purpose of mapping out appropriate programs and uses for donated commodity items to insure that they are not misused;
- Urging through the Department of Commerce voluntary compliance with a code of high ethical standards.

Health and Environmental Effects of International Trade. All types of international commerce create health and environmental effects which require control by public or private efforts (World Bank, 1974).

The effect of safety at the work site on labor productivity is receiving attention throughout the world as labor costs increase. Despite more general application of occupational safety and health measures, there may be a tendency for foreign countries to be remiss in adopting some of these measures and to have an apparent competitive cost advantage in industrial activity.

U.S. industry should be encouraged to make occupational health and safety an integral part of its production and distribution activities. Similarly, an international health strategy should foster collaboration between the United States and other countries to ensure common practices. The United States should be careful neither to export nor import ill health through these processes. This country cannot act alone, unless it is willing to accept significant international economic disadvantage or impose unfair health burdens on our own population. We need to carefully examine this issue from both an economic and moral perspective.

As with issues concerning worker health and safety, problems about the environmental effect of economic activity are currently receiving worldwide attention through U.N. conferences and other international discussions. These problems may be direct (as in polluting drinking water) or indirect (as in propagating disease vectors).

The effects of industrial growth on the natural environment and on people's health are manifested in several ways. At the earliest stages of industrial or agricultural activity, extraction of resources can change the natural ecology and increase related disease. Raw materials become reworked through industrial production, creating further possibilities for distribution of pollution and disease. Then additional wastes are produced as people eat, use, and discard items. At each stage of industrial or agricultural activity, the ill-effects upon human health and the natural environment become irreversible or correctable only at astronomical costs (d'Arge, 1972, p. 14). The merits of avoiding extremes of industrial pollution (such as the case of Lake Erie in the United States) should not be ignored.

Products and services brought to the marketplace often pose health hazards to consumers. Some hazards can be avoided simply by providing sufficient instruction to the buyer. Since many medical products and services may not be easily understood by the buyer, assistance of trained health workers to prevent misuse of a drug or treatment is required.

Perhaps one of the most serious barriers to international trade in health products concerns protection of consumers by regulations in the United States and abroad requiring government approval before marketing. Any international health policy must recognize that different governments and the medical communities within their jurisdictions may disagree legitimately in their judgment of the cost-benefit or risk-benefit ratios associated with different drugs. In countries where physicians are scarce, for example, there may be a net benefit in terms of lives saved. Medical auxiliaries can perform certain surgical procedures or can administer antibiotics which might properly be the duties of highly qualified physicians in a country like the United States. The fact that mainland China uses chloramphenicol more than other antibiotics is not because the Chinese are unaware of the dangers associated with this product. Rather, they recognize that the danger of death from severe infections, whose identity the "barefoot doctor" may be unable to diagnose, is considerably greater than the risk of aplastic anemia at a rate of 1 to 40,000 exposures to chloramphenicol.

In any case, free transferability of scientific results on the efficacy and safety of health products is greatly to be desired. Coordination of licensing standards among nations in terms of the quality of information is inadequate. We believe a significant effort should be made to develop agreement among countries on common standards for health product testing and reporting of licensing information. This objective would be significantly advanced upon agreement to the GATT Code of Conduct for Preventing Technical Barriers to Trade currently being negotiated by the United

States and other GATT members. The code will encourage the use of appropriate international standards developed by international standardization bodies; this includes the work of the World Health Organization and other similar bodies.

Several alternative policy instruments seem applicable to strengthening U.S. policy for health and environmental issues in international health. We propose the following:

- The U.S. Government should encourage, through international organizations such as GATT, OECD, and appropriate U.N. agencies, adoption of international standards or guidelines;
- A coordinated international approach to such problems might truly have great impact on health in the developed and developing worlds. Therefore the Federal Government should finance a major effort to analyze the health side-effects of international trade.

Clearly, the Office of the Special Trade Representative and the Departments of Treasury, Commerce, Agriculture, and Interior, as well as Labor, are all significantly involved in the commercial and financial aspects of international health. Commerce, for example, appears especially appropriate to encourage social responsibility for the health aspects of international commerce and to regulate and ensure compliance with measures to protect U.S. residents from imported health hazards. The Department of Health, Education, and Welfare is the obvious location for the biomedical expertise needed to maintain surveillance of the health aspects of international commerce and to develop and obtain compliance with measures to protect U.S. residents from imported health hazards. Thus, an interdepartmental approach to the problem is required at least in the evaluation and utilization of pertinent information. We believe actual studies of this subject will have to be done with private-sector involvement.

Chapter 6

U.S. Research and International Health

In this chapter we shall address several aspects of U.S. research, development, demonstration, and application (RDD&A), broadly defined, pertaining to international health. Current legislative authorities for international health research, mechanisms for funding, setting priorities, and reviewing research proposals are discussed, as well as some constraints to research and development by the private pharmaceutical industry.

We shall include in our definition of "health research" basic and applied laboratory and socioeconomic studies, studies to discover or establish facts or principles, and pilot experiments to establish how some technique or knowledge could be used in practice. "Research" is used to denote the range of activities included in "research development, demonstration, and application."

"International health problems," as we emphasize them here, include diseases, nutritional conditions, and population problems common or peculiar to developing countries, as well as problems of health systems planning and management, health services delivery, sanitation, and provision of safe drinking water. Of course, health problems of developed countries form part of this grouping, and we in no way deny the importance of problems such as aging, cancer, atherosclerosis, or the importance of international cooperation in basic biomedical research. Rather our emphasis reflects a desire to concentrate on the relatively neglected health problems of developing countries. ("Developing countries" in this discussion include all countries of Africa, South America and the Caribbean, and Asia, with the exception of Argentina, Japan, Israel, Australia, and New Zealand.)

To develop appropriate recommendations for U.S.-supported international health research, we have made a number of assumptions about the nature of cooperation in health-related activities:

- Primary emphasis should be placed on health needs common to countries in which the gap between existing and attainable health status is greatest and in which resources to close this gap are least available;

- The ultimate goal of health cooperation with developing countries should be the enhancement of their abilities to solve their own health problems, including their health research problems;

- U.S. views must be considered in conjunction with those of foreign countries in which health programs are conducted. Both the United States and the foreign country involved have reciprocal rights and obligations and useful perspectives on problems;

- A proper balance must be maintained between research and service, as well as between the pursuit of new knowledge and the use of existing knowledge to improve the health of the poor majority in developing countries;

- Cooperation with other governments and international health organizations in improving the health of mankind is axiomatic. No one country has the resources to single-handedly conduct the research required to improve health for the majority of the world's people.

U.S. Government-Supported International Health Research

According to FY 1977 estimates, six U.S. Government agencies funded approximately $106 million for international health research (see Table 6).* In addition, four other agencies of the U.S. Department of Health, Education, and Welfare (Health Resources Administration; Food and Drug Administration; Alcohol, Drug Abuse, and Mental Health Administration; Office of Human Development) and the Department of Agriculture obligated a total of nearly $5 million for international health research. These estimates may be compared with the estimated $3,301 million funded by the government in FY 1977 for all health research. These figures do not include a small amount of indirect U.S. support for international health research via the World Health Organization, one-fourth of the regular budget of which comes from the United States; they do include research supported by the Special Foreign Currency Program.

Table 6. International Health Research Supported by Six U.S. Government Agencies, FY 1976 and FY 1977 (in Thousands of Dollars)

Federal Agency	FY 1976	FY 1977 (estimate)
Agency for International Development	39,342	41,785
Department of Defense		
Army	16,496	17,458
Navy	6,443*	7,154[1] *
Department of Health, Education, and Welfare	35,600*	39,325*
Center for Disease Control	–	(1,474)[2]
Health Services Administration	–	(851)*
National Institutes of Health	–	(37,000)*
Total	97,881	105,722

*Includes Special Foreign Currency Program health research funds.

[1] Military pay is included in total estimate.

[2] Estimated Special Foreign Currency Program obligated funds for CDC were $1.9 million.

---

*See also Appendix A of this chapter and Part II, Appendix 5-B.

Of the $106 million in estimated FY 1977 obligations for international health research by the six major agencies involved, nearly $92 million was used to fund health research related to problems of developing countries (see Table 7). Of this latter amount, 57 percent was for support of research on tropical diseases; 38 percent for population research; and the remaining 5 percent for research in health delivery systems, health planning, environmental health, and nutrition.

Table 7. Federally Funded Health Research Pertaining to Developing Countries by Category in FY 1977 (in Thousands of Dollars)

Federal Agency	Health Delivery Systems	Health Planning	Tropical Diseases	Environmental Health	Population	Nutrition	Total
AID	701	609	4,545	300	34,135	1,495	41,785
DOD (Army) . .	–	–	17,458	–	–	–	17,458
DOD (Navy) . .	–	–	7,154	–	–	–	7,154
HEW (CDC) . .	221	80	898	–	–	35	1,234
HEW (HSA) . .	180	78	344	23	–	–	625
HEW (NIH) . . .	–	–	21,924	–	762	646	23,332
Total	1,102	767	52,323	323	34,897	2,176	91,588

In the private sector, U.S. pharmaceutical firms devote a substantial amount of their resources to research on drugs, vaccines, and pesticides, some of which are even more important to health abroad than to health in the United States. Pharmaceutical research and development was budgeted at $1,028 million for 1975. Pharmaceutical companies spent $133 million in foreign countries for research on human use pharmaceuticals.

Much of the tropical disease research supported by Federal agencies was conducted in developing countries. The U.S. Government currently maintains several laboratories for international health research abroad; these include laboratories supported by:

- *U.S. Army* – Five teams in local research institutions in Thailand, Malaysia, Brazil (Belem, Brasilia), and Kenya;
- *U.S. Navy* – Research units in Taiwan, Egypt, and Indonesia;
- *NIH and AID* – Dacca Cholera Research Laboratory in Bangladesh;
- *NIH and U.S. Universities* – International Centers for Medical Research in Bangladesh (Johns Hopkins), Malaysia (University of California at Berkeley), Pakistan (University of Maryland), and Colombia (Tulane);

- *CDC* – Central American Research Station in El Salvador;
- *NIH-Funded Independent Corporation* – Gorgas Memorial Laboratory in Panama.

Based on the above current support and research efforts, we conclude that there is a large reservoir of potential strength in international basic and applied health research in the United States located in government agencies and in private industry, universities, and research institutes. In biomedical research especially, the United States has the most extensive establishment in the world.

We have also found that at least 11 Federal agencies now conduct research related to international health. This multiplicity of effort is probably a source of strength, although some duplication may occur if these many segments are not coordinated with each other and with research efforts of international agencies and other countries.

Legislative Authorities for Government Support of International Health Research

Current authority for international health research resides in several Federal agencies. AID funds the largest amount for research. Its applied research activities in health, population, and nutrition related to development assistance to developing nations are authorized by the Foreign Assistance Act of 1961, as amended (sections 103, 104, 105, 106, and section 211d, Title II).

In HEW, authorization primarily derives from the International Health Research Act of 1960 (P.L. 86-610), which seeks "to advance the status of the health sciences in the United States and thereby the health of the American people through cooperative endeavors with other countries in health research and research training." Other HEW authority for biomedical research and health services research in international health is found in Title III of the Public Health Service Act (P.L. 93-353, sections 301, 304, 305, 306, 307).

The U.S.-Japan Cooperative Medical Science Program, established in 1965 by delegation of Presidential authority under P.L. 86-610, authorizes support for research on six diseases or conditions prevalent in east Asia: cholera, malnutrition, tuberculosis, leprosy, viral diseases (particularly arboviruses), and parasitic diseases (schistosomiasis and filariasis). Grants, contracts, workshops, and annual joint conferences have been supported under this program, which is administered by the National Institute of Allergy and Infectious Diseases (NIAID).

For example, within DOD, the Navy conducts overseas research on tropical infectious diseases under section 10 U.S.C. 7203, which authorizes the Secretary of the Navy to finance programs to promote the health and safety of Navy personnel.

In the Army, all biomedical research is authorized by section 225 A-U Title 42 U.S.C., which summarizes P.L. 278 dated April 23, 1976. Army research in tropical diseases is annually approved by Congress as a line item in the Army's budget.

Some congressional authorities for research have departed from their original scope and are currently defined more narrowly. For example, the International Centers for Medical Research and Training Programs (CMRT), established under the International Health Research Act of 1960, were originally intended to support research and training of U.S. and foreign nationals, established researchers and students, with sufficient travel to allow active collaboration between paired institutions in the United States and host countries. Subsequent restrictions have almost eliminated the training aspect of the program (now called ICMR, International Centers for Medical Research) and any support for foreign nationals, and have also severely curtailed travel funding by U.S. researchers, who now are the sole participants in the program.

To summarize, we found that most agencies are now legislatively constrained to conduct only international health research which can be justified as directly protecting the health of U.S. citizens or as a part of development assistance. At best, current authorization is passive and certainly does not act as a stimulus. Other legal restrictions further limit the use of agency authorizations to support international health research.

Mechanisms for Funding International Health Research

Government agencies support international health research through a variety of funding mechanisms, including grants of different types, contracts, fellowships, and intramural staff efforts. Under the contract mechanisms, agencies may develop details of project requirements and issue a Request for Proposal (RFP), or they may fund unsolicited research proposals which are consistent with their own priorities.

In contrast, proposals for most grant-funded research are initiated by outside (extramural) investigators. Grants are generally funded for 1 year at a time, but the average duration of a grant is 3 years.

While each agency may use each of these mechanisms, different mechanisms are favored by different agencies. For example, three-quarters of the international health research of NIH is supported through the grant mechanism; the remainder is divided between contracts and intramural research. AID, on the other hand, supports only extramural research, chiefly through contracts. NIH and AID also support research in other government agencies through Interagency Agreements or Participating Agency Services Agreements, respectively. The Army uses contracts to fund tropical medicine research in domestic institutions. It supports research overseas through grants to international organizations, particularly to those hosting U.S. Army teams. The Army also makes grants to investigators conducting research on relevant problems.

Special Foreign Currency Program funds are used by several agencies to support research in a few countries where these monies are still available, notably Egypt, India, Poland, and Yugoslavia.

These various mechanisms permit agencies to solicit research in specific promising areas and to be receptive to sound ideas initiated by researchers.

At AID most research is centrally funded, although research projects can be initiated by AID Regional Bureaus or by AID Missions. The Technical Assistance Bureau supports research on health delivery systems, health planning, environmental research, and nutrition. It also supports major programs of research on malaria, trypanosomiasis, and enteric diseases. The Office of Population supports the largest amount of AID research funds for biochemical, operational, and demographic research in the population field.

Budgeting considerations have been a major constraint to full utilization of existing funding mechanisms and legislative authorizations for international health research. At NIAID, for example, only about 25 percent of approved research grants could be funded by FY 1977.* NIAID funded a similar proportion of approved training grants in FY 1977. Training grants in parasitology and medical entomology have declined from 31 in 1963 ($1.175 million) to 12 in FY 1977 ($790,945). A concomitant decline in support for the teaching of parasitology in U.S. medical schools, one important source for recruiting personnel for international health research, has led to a situation in which, according to a 1973 survey, one-third of U.S. medical schools offered 5 hours or less of instruction in parasitology, nearly half offered no laboratory instruction, and 52 percent of instructors in such courses had no special qualifications in the field.

In recent years, appropriations committees have deleted funds for research on tropical diseases from the budgets of some military service units on the assumption that they were eliminating duplication. The actual result, however, has sometimes been to curtail or eliminate unique and productive research.** For example, NIH, AID, the Army, and the Navy are all supporting work on malaria immunology and/or development of a malaria vaccine, but the approaches used by the four agencies are entirely different and complementary, rather than duplicative.

We found that existing funding mechanisms permit agencies to solicit research in a specific promising area and to be receptive to sound ideas (related to their mission) which are investigator-initiated. However, we also found that international health research related to problems of developing countries (particularly tropical diseases) is underfunded, when one considers its potential for advancing U.S. national interests, the number of high-quality research proposals already being submitted, and the proven capability for high-quality research in government laboratories with a current mission in tropical medicine research. Also, we believe the effectiveness of current grants for international health research may be somewhat impaired by their relatively short duration.

---

*This percentage includes more than international health research since NIAID's mission is broader than that. A more refined figure for international health research is not available but it would probably be even smaller than this overall percentage.

**The Department of the Army has curtailed research contracts for malaria and Chagas' disease which has discouraged scientists from getting involved in these programs.

In addition, declining levels of financial support and a lack of visible, secure career ladders have led to a decline in persons being trained to conduct basic and applied health research pertaining to problems of developing countries. This poses an increasing dilemma for the United States, since persons already experienced in these subjects are steadily removed by natural attrition and it takes many years to train new people.

Mechanisms for Review, Priority Setting, and Coordination of Government-Supported International Health Research

Like most other research proposals, international health research proposals are generally subject to peer review for scientific and technical merit. They are also reviewed independently for policy and relevance to the mission of the funding agency. At NIH, for example, an initial peer review by the Tropical Medicine and Parasitology Study Section is followed by a National Advisory Allergy and Infectious Disease Council review.

Proposals for centrally funded international health research submitted to AID are reviewed for relevance and approved by an internal Research and Development Committee and then by a multidisciplinary Research Advisory Committee, consisting of recognized leaders in social, biomedical, and physical sciences. Individual (AID) project managers may obtain critical reviews of research proposals by knowledgeable civilian and U.S. Government scientists, and the results of these reviews are made available to AID's Research Advisory Committee. Army contracts and grants undergo in-house review for program relevance, and review for scientific merit by study groups composed of government and civilian scientists.

Most agencies establish their own priorities for research related to their mission by intramural staff discussions and consultations with extramural experts in the field. Congressional directives or formal legislation, in response to grassroots pressure, sometimes are aimed at priorities not relating to international health and can mandate greater emphasis on research in a particular disease. An example of this is the research on Sudden Infant Death Syndrome.

At NIH, priorities for intramural research are established by consultation among researchers, their supervisors, and institute directors. Factors that influence priorities of international health research vary among agencies. DOD, for example, focuses only on health problems which pose a threat to U.S. Armed Forces personnel around the world. NIH looks for research opportunities to increase knowledge pertaining to the pathogenesis, diagnosis, treatment, or prevention of disease. International health research at CDC is determined mostly by the need to solve problems which arise in trying to control diseases. AID research priorities are more likely to include developmental considerations as an integral part of development assistance.

In general, research priorities for contracts are usually set by the funding agency. With HEW grants, however, the quality of the proposals submitted plays an important role in determining how much funds are apportioned to international health research, and in what categories.

We are aware of no formal mechanisms for coordinating international health research among government agencies. The one exception is the Global Epidemiology Working Group, composed of representatives from many agencies and organizations having interest in tropical diseases, whose members meet monthly to exchange information. Some coordination of international health research is achieved primarily through informal contacts among investigators working on related projects. In addition, DOD has appointed representatives, members, or liaison members in NIH study sections, advisory councils, and program review committees dealing with tropical medicine. Army study groups include representatives from Navy, NIH, CDC, and FDA's Bureau of Biologics. The Joint Medical Research Conferences coordinate DOD triservice medical research, as well as exchange of program and research summaries. At NIH, when research in a particular field is divided among two or more institutes, specific inter-institute coordinating committees are sometimes set up at the suggestion of the Director of NIH (or following a recommendation of one of the institutes concerned). There are no fixed criteria for this activity.

While mechanisms for technical and scientific review of research proposals exist in the major agencies supporting research in international health, we found that the mechanisms employed are not always as rigorous or intensive as those of NIH, where specialized study sections review proposals in discrete subject areas.

In addition, we conclude that there is neither an established policy throughout the government nor a strategy for research in international health problems, and no mechanism exists to establish and implement priorities or coordinate government-wide programs for U.S. international health research.

Cooperation With WHO in International Health Research

Two new initiatives by WHO provide opportunities for significant U.S. collaboration in international health research pertaining to developing countries. These are the Special Program for Research and Training in Tropical Diseases (TDR), a planned effort to focus research and training on six diseases (in order of priority: malaria, schistosomiasis, filariasis, trypanosomiasis, leprosy, leishmaniasis), and the Expanded Program on Immunization (EPI) which seeks to help countries immunize their children routinely against polio, diphtheria, whooping cough, tetanus, measles, and tuberculosis. (These programs are outlined in more detail in Appendix C at the end of this chapter.)

Approximately $23.6 million was obligated by U.S. agencies in FY 1977 for research which is germane to the TDR program (see Table 8). More than half was obligated for research on malaria, the most important of all tropical diseases, and about one-fourth for anti-malarial drug development by the U.S. Army. Indeed, the U.S. Army currently conducts the largest anti-malarial drug development program in the world. Contracts are given to industry and private research organizations for synthesis and manufacture of experimental drugs. Funds for this program are being reduced annually.

Table 8. Selected Tropical Disease Expenditures by Category, FY 1977 (in Thousands of Dollars)

Federal Agency	Malaria	Schistosomiasis	Trypanosomiasis	Filariasis (includes Onchocerciasis)	Leishmaniasis	Leprosy	Total
AID	849	296	1,400	100	–	–	2,645
DOD (Army) . .	8,526	276	774	–	298	–	9,874
DOD (Navy) . .	1,615	1,249	–	245	–	–	3,109
HEW (CDC) . .	303	92	77	108	4	41	625
HEW (HSA) . .	–	–	–	–	–	154	154
HEW (NIH) . . .	1,300	2,600	500	1,100	300	1,400	7,200
Total	12,593	4,513	2,751	1,553	602	1,595	23,607

Note: U.S. Department of Agriculture supports some research in biological control of vectors (especially of trypanosomiasis) which is not included.

Another example of a unique U.S. research role with global implications is the result of a recent breakthrough whereby the supply of leprosy bacilli (Bacillus Hanson) has been increased in large numbers and made available to researchers around the world. At present, only two institutions are able to grow leprosy bacilli in armadillos. Both are U.S. health facilities supported mainly by NIAID contracts: the U.S. Public Health Service leprosarium at Carville, La., and the Gulf South Research Institute at New Iberia, La. The TDR leprosy research program is the most advanced and well coordinated of the six disease efforts so far; much of its research depends on the two U.S. laboratories for a supply of leprosy bacilli.

In 1977, two U.S. nationals were assigned to the Geneva WHO headquarters of the TDR and EPI programs, one to each program. Other U.S. nationals also serve as consultants to both programs and as members of Scientific Working Groups of the TDR.

The amount of U.S. research conducted in relation to EPI is unknown. Much of it is in the private pharmaceutical industry where the potential for U.S. scientific progress is also very substantial. AID has made a small grant for the development of a heat-stable measles vaccine. The United States also has a valuable resource in joint AID/CDC experience with 5 years of combined measles and smallpox immunization in West Africa. The EPI program is not yet as far along as the TDR, however.

Extensive discussions over the last 2 years within the donor community have focused on programmatic and administrative issues to implement the TDR program. In early 1978, the United States announced its intent to contribute $20.3 million to the TDR program over the next 5 years. We should recognize that an estimated 30 to 40 percent of research funds disbursed by the WHO TDR in its early years are likely to be awarded to U.S. researchers who possess a substantial portion of the scientific competence now available in this field.

The Special Program for Research Training in Tropical Diseases and the Expanded Program on Immunization of WHO represent outstanding opportunities for U.S. participation through established international linkages in the form of multilateral research programs relevant to developing countries. The United States already supports a large amount of research relevant to both programs, including, in some instances, research or services which are only found in this country.

Health Research Pertaining to Developing Countries by the U.S. Pharmaceutical Industry

The U.S. pharmaceutical industry constitutes a major resource for the development of many drugs, vaccines, and pesticides, which are used mainly in developing countries. For this reason, we considered governmental actions affecting incentives to private industry in this area.

The large investment required of a company to develop new products is ordinarily recovered by sales. There is almost no domestic U.S. market for vaccines, drugs, or pesticides used against tropical diseases. The main potential purchasers of these products are developing countries or international assistance organizations acting on their behalf. At present, these markets are unprofitably small and offer no realistic incentive for industry research in this area.

When a new drug is developed by an American company, the firm may not market or export that drug from the United States without an approved New Drug Application (NDA) -- section 801 (d) in the Federal Food, Drug and Cosmetic Act -- and without labels and warnings which meet certain standards. The same regulations also prohibit AID from purchasing any drugs, vaccines, and pesticides for use abroad which have not received an NDA (a temporary waiver permits export of DDT). If a new drug is indicated for a disease with low incidence in the United States, a potential producer may not be able to justify or recover the expense of obtaining FDA approval. Careful consideration should be given to more flexible policies which would encourage U.S.-based pharmaceutical manufacturers to engage in the research and manufacture of drugs against tropical diseases. In the case of vaccines especially, recent increased concerns about manufacturer liability have served as a disincentive to developing and testing new products. (Product liability insurance as well as the deductible for a pharmaceutical firm can be extremely high, when it is available.)

In addition, governments of some developing nations with endemic tropical diseases have created unfavorable conditions for business and investment in the manufacture or importation and sale of pharmaceutical products. Recognition and protection of industrial property rights – particularly patents and trademarks, for example – are deficient in some countries. Manufacturers perceive understandable efforts by countries to control prices of pharmaceutical products as another disincentive.

Tropical countries could themselves produce a wide range of plants for pharmaceutical uses and could potentially contribute new pharmacological products through use of indigenous plants and herbs. The Agricultural Research Service of the U.S. Department of Agriculture has developed a Crop Diversification System to investigate substitutes for narcotic plants. This data bank is a resource that might be used to explore possibilities for commercial production of certain plants in tropical countries. In addition to the potential for expanding agricultural employment, such efforts might provide a vehicle for fruitful professional collaboration with China, India, and other countries.

We conclude that the underutilization of existing drugs and vaccines, researched and developed at considerable expense by industry, is a major disincentive to new investment in tropical medicine research and development by pharmaceutical firms. Greater use of existing drugs and vaccines in developing countries would probably stimulate more research on other relevant products by the pharmaceutical industry and might encourage willingness to incur other developmental expenses.

Research Into Health Service Delivery*

Despite worldwide concern for development of an applicable body of knowledge about the organization and management of health service delivery systems, the conceptual and operational problems of health service research are formidable. Ambitious proposals for health service delivery systems research are common; serious, informative presentations of useful results are rare.

In developing countries, access to health care is often so limited that health service delivery systems must be started from scratch. Since developed country models are largely inappropriate to the cultural and economic conditions of low-income countries, extensive research and developmental efforts are required in this area.

---

*The impact of these research projects will extend well beyond the improvements in health service delivery to facilitate infrastructural training and rural development, and to provide the beginnings of a scientific base in countries where none previously existed.

Along with other developed and developing countries, the United States is struggling with the problem of making efficient, high-quality health care economically accessible to everyone. To reach these goals, resources should be allocated to those activities which can assist in the development of effective, efficient health service delivery systems. This general area of research is of great importance to the United States and to other countries.

Recommendations Concerning International Health Research

With respect to U.S. research, development, demonstration, and application and their relationship to plans for international health, we recommend several measures.

The U.S. Government should adopt an overall administrative and program strategy for cooperation with other countries in international health research. This strategy should include clearly defined priorities among categories of basic and applied research; should support increased attention to research on health, nutrition, and population problems of the Third World; and should foster developing countries' self-reliance in health research. The strategy should also support a U.S. research program for international health which is basically developmental (that is, geared toward long-range objectives, including training) but which can also take advantage of new research leading to relatively quick "breakthroughs." The development and transfer of technology and methods which can be sustained in Third World countries should be emphasized.

The conceptual issues involved in the analysis of international allocation of resources to health research are extraordinarily complex. At present, tendencies exist which encourage international under-investment in health research. Appropriate international action is needed therefore to achieve optimum levels of expenditures.

We believe that the PHS, AID, NSF, and other agencies with significant interest and analytical capacity should investigate these issues. Specifically, they should conduct research studies and develop the capacity to use the results of these studies.

The U.S. Government should establish a mechanism to focus leadership for basic and applied international health research. This mechanism would:

- Make certain that clear priorities are established (in consultation with ad hoc groups or task forces) for U.S. international health research;
- Coordinate international health research supported by the U.S. Government;
- Ensure implementation of established priorities by appropriate agencies;

- Serve as liaison to coordinate U.S. research with international agencies such as WHO, UNDP, and others;
- Maintain an up-to-date inventory of current and planned RDD&A projects.

The mechanism we envision would also review international health research programs for overall program content, seek to maintain a proper balance between RDD&A efforts, assess accomplishments, and make recommendations on continuation, termination, or redirection of major program segments. Individual proposals would continue to be reviewed by appropriate agencies for scientific merit and relevance to the international health effort. Such review and evaluation should occur on a regular basis.

This centralized coordination and priority setting must not lead to ironclad control which might stifle initiatives and innovation by individual agencies. The danger of jeopardizing productive continuing programs must be constantly considered. Fostering linkages between research efforts without stifling participating agency initiatives or hampering their ability to meet their mission requirements constitutes the most useful activity.

Overall U.S. priorities for international health research should be compatible with, and complementary to, U.S. international health policies. Criteria for establishing RDD&A priorities should include the demographic, economic, and social impact of the health problem, as well as the potential of research to increase knowledge.

Major U.S.-supported international health research thrusts* might include:

- Basic, low-cost health care delivery systems to extend coverage of minimal health, nutrition, and family planning services, especially in rural areas;
- Application of the tools of modern health planning and management to improve administration of health, nutrition, and family planning programs;
- Simplified epidemiological surveillance techniques to pinpoint undernourished groups, identify the cause of malnutrition, determine appropriate intervention, monitor changes, obtain reliable demographic data, and report the extent of communicable diseases;
- Research on the WHO-designated diseases in the TDR program, namely malaria, schistosomiasis, filariasis, trypanosomiasis, leprosy, and leishmaniasis;

---

*These research areas are intended as a starting point for consideration of a national research agenda. No importance should be attached to the order of listing. Undirected, basic research and promising research in other international health areas should also be supported.

- Laboratory research to improve existing vaccines and to develop new vaccines, and operational research on implementing immunization programs in developing countries;
- Research on communicable diseases, especially causes of infectious diarrheas, tuberculosis, and prevalent arboviral diseases;
- Technology and techniques for improvement of domestic water supply quality and cleanliness, and human waste disposal;
- Development of effective intervention methods to correct protein/calorie malnutrition, vitamin A deficiency, and iron deficiency;
- Study of social, economic, and environmental determinants of ill health, malnutrition, and excessive fertility;
- Continued research on and provision of safe, effective fertility regulation, particularly long-acting and reversible methods;
- Determination of interrelationships among fertility, lactation, nutritional status, and infection;
- Study of the economic and social impact of health on development, population, productivity, and quality of life.

The U.S. Government should support WHO's TDR and EPI initiatives. Each initiative should receive direct budgetary support and should be augmented by complementary research programs in the United States. Immediate research priorities for domestic U.S. support in connection with the TDR program include malaria drug and vaccine development, antischistosomal drug testing, and cultivation of leprosy bacilli. Domestic research support for EPI includes research on a more stable measles vaccine and operational research on expanding immunization programs in developing countries. Opportunities to provide leadership in the field in support of the WHO immunization effort should be sought and exploited via bilateral support and technical cooperation with separate country EPI programs. Contracts and other methods should be exploited by the U.S. Government to stimulate research by private pharmaceutical firms.

A moderate increase in funds and staff positions should be made for domestic support of directed and undirected international health research. A visible, substantive increase in funds would demonstrate the U.S. Government's revitalized commitment. It would also expand career opportunities in this area and thereby attract more researchers to the field. Most importantly, it would increase the likelihood that new solutions to important international health problems, some of which directly affect the United States, will be developed and applied. Such increased support should build on the research strengths of existing agencies.

Current funding mechanisms should be modified to ensure long-term, visible, institutional support for international health research and for training researchers in the international health field. The urgency of accelerated training of researchers demands special emphasis because of the 5- to 10-year time span required to develop newly trained scientists into independent researchers. A number of U.S. centers to promote multidisciplinary research, training, and service related to tropical diseases, population problems, nutrition, socioeconomic determinants of health, and so forth, could be supported and given core funding. Core support should be granted to expand and broaden faculty research, service, and training capability and permit optimal intellectual productivity. Linkages among faculty and institutions with common research interests, such as those now supported by the U.S.-Japan program, should be encouraged. Activities such as the Tropical Medicine Training Grant Program and the International Research Career Development Program might be reactivated.

U.S. Government support to international health research laboratories abroad should be continued with the existing laboratories now operating under DOD, NIH, and CDC auspices.* In view of the changing emphasis of U.S. Government involvement in different countries and the potential impact that these laboratories can have on U.S. interests in technical cooperation with other governments and multilateral agencies, the role of existing laboratories should be strengthened.

With appropriate planning, personnel, and support, the U.S. tropical disease research facilities abroad could enhance their research and training functions. Specifically, these facilities could be tied to overall U.S. priorities for international health research, for cooperation with WHO's TDR and EPI programs, for training a new generation of U.S. civilian and military researchers in field situations, and for training foreign researchers. For example, the United States should support the current conversion of the Cholera Research Laboratory in Bangladesh into an International Center for Health Research devoted to multidisciplinary research in health, nutrition, and population problems of the developing world. Similarly, DOD should explore the possibility of an expanded role for training U.S. and other nationals in clinical tropical medicine and in research at one or more of its laboratories abroad.

Finally, legislative reforms should be sought to secure more direct authorities for appropriate agencies (AID, NIH, CDC, DOD, HSA, and so forth) to pursue international health research that is consistent with overall international health policy. The aim of these reforms should be to increase the compatibility of international health research activities throughout the government. Legislative and/or administrative reforms should be sought to minimize constraints to pharmaceutical industry involvement. Present regulations governing research and testing for the approval of new drugs for human use should be reviewed to ensure that proper consideration is given to the risks and benefits that exist in developing countries.

---

*See Appendix B of this chapter regarding proposals for expanded DOD involvement in tropical disease research and training through presently supported DOD laboratories in developing countries.

Chapter 6: Appendix A

International Medical Research Conducted by Nonmilitary U.S. Organizations*

To provide a basis for comparison with the programs of the overseas military medical research laboratories, a review was made of international medical research conducted by U.S. nonmilitary agencies or organizations. For purposes of suitable comparison, consideration was given only to research in infectious disease and, more specifically, research programs carried out in permanent or semipermanent overseas installations, in contrast to short-term overseas studies by organizations or individual investigators. Such review did not consider, therefore, numerous international programs conducted by selected Federal agencies, academic centers, foundations, and individual investigators in other areas of biomedical research, in medical education and training, health care systems, or public health practices. The exclusion of such activities from this review carries no judgment about their purposes or merit.

A. Federal Programs

1. National Institutes of Health; Department of Health, Education, and Welfare

a. International Centers for Medical Research (NIAID/NIH)

In 1960, the International Health Act authorized "a program through U.S. universities for the early development of research and research training centers with adequate field opportunities for the international studies." Five awards were made by NIH to universities which had the capability of developing research and training centers as an outgrowth of their research and educational programs. The intent was to provide opportunities for U.S. physicians and scientists to conduct investigations and receive training in disease conditions abroad, particularly in those diseases not present in the United States. The program would provide American medicine with a small core of competence in exotic diseases not obtainable within U.S. medical education systems. Each of the five U.S. universities would establish arrangements with a counterpart scientific institution in a selected country for the purpose of undertaking joint investigations and exchanging faculty and students.

Originally, awards for the International Centers for Medical Research and Training (ICMR) were made to five universities, four of which are still supported. Although most of the problems and opportunities in the selected foreign countries dealt with infectious disease, other conditions such as malnutrition, genetic diseases, and population dynamics were to be included in ICMR programs. Although one of the principal purposes was to train U.S. scientists in research in a foreign situation, it was recognized that the quality of research must be of a grade high enough to achieve the objectives of the program. The following descriptions and the present designation for the centers summarize the program and activities of each ICMR.

---

*This material was gathered for the House Appropriations Committee, Survey and Investigations Staff, in April 1977. It appears as Chapter 4 of the report entitled, *Overseas Medical Research Programs of DOD.*

- **University of Maryland School of Medicine** – The Institute of Hygiene and Preventive Medicine in Lahore, Pakistan, was selected as the counterpart institution in 1962 and has remained the principal focus of University of Maryland international research activities. The U.S. Agency for International Development also assisted by establishing a tripartite agreement with the Government of Pakistan and with the University of Maryland, accompanied by financial support. Adequate laboratory facilities were available in Lahore, and opportunities for field studies quickly developed.

During its 14 years of existence, the University of Maryland-Pakistan ICMR has conducted a number of research projects that have advanced knowledge and provided training to both American and Pakistani scientists. The most active and influential study has been on genetic variations of mosquitoes for the purpose of devising methods for biological control of vectors of malaria and arboviral infections. By breeding mutant or hybrid strains of mosquitoes, scientists hoped to discover genetic types that would displace wild types which are more efficient transmitters of disease than the hybrid forms. Studies such as these are long-term projects.

Another research project has dealt with the treatment of malaria in man with special reference to drug-resistant strains of the malaria parasite that occur in Pakistan. An extension of this project was pursued in Bahia, Brazil, for a short period but was terminated.

In 1975-76, 25 articles by ICMR staff members were published or accepted for publication in scientific journals. In the last 3 years, 12 doctoral-level U.S. scientists have participated in the program in Pakistan, most of whom now hold academic positions, while others are in the Public Health Service. As could be expected from the scientific projects, nearly all are pursuing some aspects of insect transmission of disease. None of the 12 is presently in the military services.

- **Johns Hopkins University** – Originally located in Calcutta, India, the Johns Hopkins Center for Medical Research (JHCMR) was relocated in Dacca, Bangladesh, in 1974 because the new situation provided greater research opportunities. Four departments of Johns Hopkins University have joined in planning and sponsoring activities in Dacca which are housed in buildings of the National Institute of Public Health of Bangladesh. The quarters are adjacent to the Cholera Research Laboratory now financially supported by AID and scientifically directed by NIAID. The JHCMR conducted a broad spectrum of research projects in India and nearby countries, but in Dacca the focus is on cholera and on population dynamics.

In Dacca, located in the delta of the Ganges River system, and in surrounding Bengal, epidemics of cholera recur nearly every September through November. In the past two decades the disease has sometimes spread as far as the Philippine Islands, the Middle East, southern Russia, and Africa. Largely through physiological studies of the disease process by scientists of the JHCMR in Calcutta, NAMRU-2 in

Taiwan, and the SEATO laboratories in Bangkok and Dacca, treatment by intravenous and oral replacement of salts and fluids has reduced the fatality rate to less than 1 percent from 30-50 percent in untreated cases. In conjunction with epidemiologic studies of cholera, a large rural and village population was followed intensively to determine precise demographic data on a base population for studies of disease incidence, nutrition, population dynamics, etc. Other projects were hepatitis, malnutrition, and anemia in Nepal, schistosomiasis and the ecology of certain insects and of rodents and other mammals in India.

In 1972-74, 28 scientific papers of the JHCMR were published. From 1972 to 1976, 47 scientists of varying experience engaged in research projects for differing periods of time. Most now have faculty positions at Johns Hopkins University, and none are known to be in the military services.

- **Tulane University** – From 1961 until 1975, the Tulane University ICMR was associated with the Universidad del Valle in Cali, Colombia, and pursued a joint program of training and research in a wide spectrum of medical problems. Presently Tulane University has an agreement with the Colombian Fund for Science and Technology (a counterpart of the U.S. National Science Foundation) to sponsor the Center's activities. New quarters were found for the laboratories and administrative offices in Cali.

From its beginning, the Tulane ICMR has conducted a vigorous program on malnutrition, including clinical investigation on hospitalized adults and children, experimental animal studies, and field surveys.

Infectious parasitic disease forms the second largest effort and includes investigation on American trypanosomiasis, an important human disease in certain areas of South America; intestinal parasites in school-age children; and the ecology of insect vectors of parasites of man and animals. Epidemiological investigations of diarrheal disease and fungus infections are also conducted. The third unit of the Tulane-Colombian ICMR deals with behavioral science and social epidemiology, including social psychiatry, health systems, anthropology, and health service utilization.

A total of 53 scientific papers were published or in press in 1974-75, and 87 faculty members and students of both universities participated in some way in the 1975 projects of the Tulane ICMR program.

- **The University of California** – The ICMR at the University of California (UC) is under the direction of the George Williams Hooper Foundation for Medical Research and the Department of International Health at San Francisco. Currently, the two collaborating institutions are located in Kuala Lumpur, Malaysia – The Institute of Medical Research; and the Faculty of Medicine, University of Malaya. UC-ICMR laboratories are located in both institutions. The Institute for Medical Research (IMR) of Malaysia is administratively under the Ministry of

Health. It was established under British rule and just celebrated its 75th anniversary. For many years its scientists have played an influential role in investigation of scrub typhus and malaria. New laboratory and animal holding buildings are being completed which will improve IMR's research capability. The IMR produces vaccines, provides diagnostic and reference services to the health activities of the Federation of Malaysia, and is involved in training technicians. It is a WHO International Reference Center for specific programs on influenza, food-borne infections, and oral cancer. These activities of the IMR broaden the opportunities for UC-ICMR collaboration in research projects. The U.S. Army Medical Research Unit (USAMRU)-Malaysia is located in the same building but, since there are at present no common research activities, there is only casual or informal communication between UC-ICMR and USAMRU-Malaysia.

Since the inception of the UC-ICMR in Malaysia, research on arboviruses and their role in human disease has been a major and continuous effort. Dengue is the principal disease under investigation because of its prevalence in Malaysia and the complexities of strain difference, mosquito vectors, and epidemiologic characteristics in various geographic areas. Although dengue is usually observed as an urban disease, its apparent presence in forest-dwelling people led to a search for a jungle cycle between forest animals and mosquitoes such as occurs in jungle yellow fever. Scientists at UC-ICMR demonstrated that dengue infection occurs in monkeys in the forest canopy and that a previously unknown mosquito inhabiting the forests is the probable vector.

The UC-ICMR location in Malaysia has afforded an unusual chance to describe the characteristics of community health and medical practice in this part of the world. Research has been directed at population dynamics of various peoples in Malaysia including the native Aborigines and Malays in both rural and urban situations. The variety of peoples in Malaysia has provided the opportunity to study abnormal hemoglobin occurrence and other human genetic conditions, such as thalassemia. These investigations are closely coordinated with those undertaken at UC, San Francisco.

An important segment of the UC-ICMR program is parasitology, especially host-parasite interaction, with special emphasis on natural or acquired resistance of vector snails to the larval stage of human parasites. The long-range objective is to develop methods to control snails, the transmitter of schistosomes and other parasites, by biological means rather than by chemicals.

In 1975, 48 scientific publications emanated from the UC-ICMR, and 56 were in press. Since its inception, UC-ICMR has provided research experience to 74 biomedical scientists, none of whom is now in the military services.

- **Louisiana State University (Inactive)** – This center was established in 1962 in association with the University of Costa Rica Medical School and Hospital in San

Jose, Costa Rica. Funding by NIAID was terminated in 1970, but Louisiana State University (LSU), with the aid of small project grants, maintained the research program on a reduced scale. The study of parasitic infections was the most active project, but viral infections, including hepatitis, were also investigated.

In addition to the exchange of faculty and investigators practiced by the other centers, LSU Medical School has regularly used the Costa Rica site for teaching undergraduate medical students, as well as for special short-term (4-6 weeks) graduate courses. This provided a chance for a relatively large number to observe the medical problems of tropical areas and was often a stimulus to further individual investigative work.

b. Pacific Research Section, Laboratory of Parasitic Diseases, NIAID/NIH

Funded and directed by NIAID, the laboratory is located at the University of Hawaii and is staffed by four professional members of the NIAID staff.

The basic purpose of the laboratory is to study selected infectious diseases in the Pacific area. Its location gives it access to isolated island communities which present special epidemiologic situations not found in mainland areas. Its research has focused primarily on dengue fever, eosinophilic meningitis, toxoplasmosis, and diarrheal diseases. The laboratory has established collaborative relationships with the military medical research laboratories in Southeast Asia and with laboratories in the Pacific Islands under the political control of other countries such as France and Australia.

Aside from general communication between its scientists and those of the U.S. military laboratories, the laboratory has had specific collaborative research programs:

- 1965 – joint study with the SEATO Laboratory (Bangkok) of eosinophilic meningitis;
- 1966-68 – study of diarrheal disease at Clark Air Force Base, the Philippines;
- 1974 – joint study with Southeast Asia Medical Research Laboratories (SMRL) on the isolation of dengue virus in Thailand;
- 1976 – joint study with SMRL on serum antibody analyses; joint study with USAMRU-Malaysia on serum studies of scrub typhus including analysis for antibodies against phlebotomus fever and other arboviral infections; studies with NAMRU-2, Taipei, on eosinophilic meningitis.

Cooperation has occurred because of the mutual interests and opportunities of the scientists rather than as a result of a deliberate plan for cooperation by the directors of military medical R&D and the Directorate of NIAID.

c. United States-Japan Cooperative Medical Science Program

Sponsored by NIAID, this program coordinates research efforts of American and Japanese scientists on diseases of concern to Asian countries: tuberculosis, leprosy, cholera, certain parasitic diseases, and viral diseases. Its principal activity is to convene yearly conferences alternately in the two countries for the purpose of exchanging information about research studies. It is funded at approximately $8 million annually by three NIH institutes – the National Institute of Allergy and Infectious Disease; the National Institute of Arthritis, Metabolism, and Digestive Diseases; and the National Institute of Environmental Health. Virtually all U.S. research in this program is supported by grants to scientists at American medical schools and universities. The Japanese provide grants to their scientists in a similar manner. Research is carried out at academic institutions in the two countries supplemented by visits to areas of endemic disease as research needs dictate.

2. Center for Disease Control (HEW)

For the past 5 years, CDC has funded and maintained the Central American Research Station in San Salvador, El Salvador. Staffed by 10 U.S. employees and 50 local nationals, the laboratory has devoted its research to three vector-borne diseases: malaria, Chagas disease, and onchocerciasis. Research programs utilize both laboratory and field studies. Of the three diseases, only malaria is under study by military overseas laboratories. The CDC laboratory in El Salvador directs its malaria research to field surveillance and studies of sterilization of the male mosquito as a method to reduce breeding.

Since August 1976, a CDC employee has been stationed in Sierra Leone for the purpose of establishing a laboratory to study Lassa fever. CDC has also been conducting studies in Guatemala on nutrition in these and other diseases.

3. U.S. Agency for International Development (AID)

AID provides the major part of the funds for the Dacca Cholera Research Laboratory for research in cholera and other enteric diseases. AID provides 90 percent of the laboratory's funds in the form of a grant to NIAID/NIH which, in turn, selects the director and key staff and provides program direction and review. The remaining 10 percent of funds are supplied by Bangladesh, Australia, New Zealand, and the United Kingdom. The laboratory exists under an agreement between AID and the Government of Bangladesh. Personnel are drawn from NIAID, CDC (one), and local nationals. No AID personnel serve in the laboratory.

Although this is the only overseas laboratory supported by AID, the agency contributes funds to WHO for the support of the West Africa Onchocerciasis Program and to the Pan American Health Organization for malaria research in Colombia.

B. Non-Federal Programs

1. Gorgas Memorial Laboratory, Panama

Since the 1920s, scientists of the Gorgas Memorial Laboratory (GML) in Panama City, Republic of Panama, have investigated diseases of special importance to the Isthmus and Central America. The laboratory is the research arm of the Gorgas Memorial Institute of Tropical and Preventive Medicine, Inc., a private, nonprofit organization incorporated under the laws of the State of Delaware and registered in Panama in 1921, as a memorial to Major General William Crawford Gorgas. The land and original buildings were donated by the Republic of Panama, and the U.S. Congress authorized an annual contribution for operating funds. The laboratory also receives gifts, grants, and contracts for defined research projects. The institute is governed by a Board of Directors which includes officials, leading scientists, and representatives of Panama and the United States. The research program in Panama is directed by a well-known scientist, usually a U.S. citizen, though the present director is Panamanian. Efforts are now underway to encourage more Panamanians and others in Central and South America to participate in research and the administration of the Laboratory, a promising development which should be supported.

There has always been close cooperation with U.S. Government organizations such as DOD and NIH in program development. When the Middle America Research Unit, located in the Canal Zone, which had been jointly managed by NIH and the Army's WRAIR, was disestablished in 1972, GML undertook a contract from NIH to complete its research projects and provided facilities for the operation of the USAMRU-Panama of WRAIR. This Army unit was terminated, however, on June 30, 1976. GML has modern laboratory and animal holding buildings in Panama City and a farm for animal holding outside the city. The total scientific staff in 1975 numbered 19 and the visiting staff and research associates were 7. The total operating budget in FY 1976 was $1.36 million and the estimated budget for FY 1977 is $1.4 million.

The research program emphasizes ecological studies related to disease problems of Panama and nearby tropical areas, including the effect of economic development on disease patterns. For example, a major project in recent years has been the study of ecological changes and consequent disease patterns caused by construction of the Bayano River dam and the Pan American highways. Alteration of the natural environment affects the distribution of disease vectors and also exposes workers to infections indigenous to the jungle. Yellow fever has been endemic in Panamanian wildlife, and human cases occur from time to time. Venezuelan encephalitis and dengue are a threat and must be monitored. Malaria has been continuously under study since the inception of the laboratory, first to develop vector control methods in Panama and more recently to evaluate new drugs in New World monkeys. American trypanosomiasis is endemic in Panama and has been investigated by GML scientists for many years. Studies on leishmaniasis, commonly found in some areas of Central America, have been pursued intensively for many years but are being phased out with the retirement of a senior scientist.

Gorgas Memorial Laboratory has provided an opportunity for many young scientists from Western Hemisphere countries to receive research training in tropical diseases. The U.S. Navy for some years has sponsored 6-week courses by GML staff to instruct Navy physicians in tropical disease, alien cultures, and environments. The Graduate School of Louisiana State University is affiliated with GML and sends students for special studies or experience. Twenty-three scientific papers were published by the staff in 1975.

2. The Rockefeller Foundation

Since 1967 the Rockefeller Foundation has maintained a laboratory on St. Lucia, British West Indies, to study the control of schistosomiasis in that location. Staffed by Rockefeller Foundation personnel, the laboratory has been comparing the cost effectiveness of control measures by drugs, molluscicides, and improved water control and supply.

Department of Defense Overseas Research

In 1900 Major Walter Reed of the U.S. Army Medical Corps scientifically demonstrated the transmission of yellow fever by the *Aedes aegypti* mosquito. Using this vital information, Colonel Gorgas controlled the mosquito population and made possible the building of the Panama Canal. This dramatic example highlights the contribution the U.S. Armed Services have made through the years to tropical and preventive medicine and thereby to international health.

DOD operates overseas medical laboratories in seven countries throughout the world. Research conducted in these research facilities is directed towards infectious diseases that could reduce the effectiveness of military personnel operating in remote areas of the world.

U.S. Army laboratories operate in Malaysia, Thailand, Kenya, and Brazil. U.S. Navy laboratories operate in Egypt, Taiwan, Indonesia, and until recently, in Ethiopia. These laboratories (see Table 9) have resulted from cooperative arrangements with host governments. They undertake cooperative multidisciplinary research on disease prevention and the reduction of disability: The new medical school in Malaysia, in fact, will be located adjacent to the U.S. Army research facility in Kuala Lumpur.

DOD overseas laboratories offer on-site opportunities for understanding the prevalence, transmission, and reservoirs of diseases that occur in tropical and subtropical areas. DOD laboratories serve as a base for specialists to become familiar and maintain familiarity with these diseases, which are not generally found in the United States. The laboratories assist medical personnel to maintain an inventory of medical capabilities and population disease profiles in several developing countries. They also permit essential in-country field testing and evaluation of drugs and vaccines that have been developed against diseases that occur overseas. Such tests and evaluations are done as joint efforts with health authorities of the host countries.

The overseas laboratories, while serving a needed DOD purpose, have many benefits for the countries in which they are located. The Naval Medical Research Laboratory in Egypt has been in continuous operation for some 25 years – including the periods of the Arab-Israeli Wars and the time when diplomatic relations between the United States and Egypt were severely strained. In July 1976, when the Thai Government eliminated the American military presence in that country, it requested that the Army Research Laboratory in Bangkok remain.

Health professionals with training in a variety of disciplines related to tropical medicine and hygiene are in demand by the U.S. Government, foreign governments, academic institutions, and voluntary agencies. The DOD centers of tropical medicine research provide a ready-made mechanism for training as well as research. More medical personnel from Third World countries could be trained in these facilities. If the

Table 9. Army and Navy Overseas Medical Research Units

Army	FY 1977 Funding ($ thousands)	Program Areas
Thailand	1,100	Malaria (drug development) Dengue (vaccine development)
Malaysia	448	Rickettsial diseases (scrub typhus prevention)
Brazil (Belem)	472	Arboviral diseases (prevention)
Brazil (Brasilia)	87	Schistosomiasis (drug testing)
Kenya	130	African sleeping sickness (vaccine development)
Navy*		
Taiwan (Research Unit No. 2) . . . (Detachment)	2,268	Schistosomiasis (epidemiology) Arboviral diseases (epidemiology) Scrub typhus (epidemiology, treatment) Infectious diarrheas (epidemiology) Parasitological surveys Filariasis (epidemiology, treatment) Hepatitis B (epidemiology) Amoebiasis (epidemiology) Leptospirosis (epidemiology)
Indonesia (Research Unit No. 2) . . .	406	Malaria (treatment) Arboviral diseases (epidemiology) Infectious diarrheas (treatment) Parasitological surveys Filariasis (epidemiology)
Egypt (Research Unit No. 3) . . .	1,056	Schistosomiasis (epidemiology, prevention, treatment) Infectious diarrheas (treatment) Parasitological surveys Meningitides (treatment, diagnosis) Amoebiasis (epidemiology)

*Includes military pay and management and support costs.

necessary additional resources were made available, it might be possible to augment the functions of the medical laboratories to include a clinical role. They would also provide a vital and needed professional development resource for members of the Armed Services.

The laboratories could be expanded to become centers for regional training in clinical tropical medicine. Medical personnel from Third World countries could be trained in these regional centers. DOD should consider pilot testing the expanded role of clinical tropical medicine and research in one or more laboratories. Because the laboratories are situated overseas, foreign national health personnel working there would be able to obtain clinical experience relevant to their home country health needs.

Over the years, DOD Overseas Laboratories have earned a great deal of good will for the United States in developing countries located on three continents. The importance of the work done by Americans in these laboratories is recognized and appreciated by host country governments. This trust and good will which DOD has built up throughout the world should be utilized as a vehicle for fostering the U.S. Government's humanitarian goals.

WHO/UNDP Special Program for Research and Training in Tropical Diseases (TDR) and WHO Expanded Program on Immunization (EPI)

TDR Objectives

- Development of improved tools needed to control tropical diseases at a cost bearable to the poorest countries, requiring minimal skills and supervision, and permitting easy integration into health delivery systems and/or the public health service;

- Strengthening of biomedical research capability in tropical countries so that they can solve their disease problems.

Mechanisms

- A Scientific and Technical Advisory Committee (STAC) composed of individuals with broad knowledge of the diseases and their impact in tropical countries determines priorities among the different diseases and allocates funds to ensure an authoritative and balanced overall approach;

- A Scientific Working Group (SWG) comprising a "peer group" of international experts in the field with knowledge of specific diseases or groups of diseases defines the problems to be attacked; determines priority research areas; judges the scientific merit, soundness, and probability of success of each research project before it is included in the program and monitors and evaluates the projects periodically as they proceed, reorienting resources as necessary. SWGs have now been established or are planned for each of the six diseases and for epidemiology, socioeconomics, biomedical sciences, and institution strengthening;

- A network of collaborating laboratories will carry out the research activities of the program. Two participating Third World laboratories thus far identified are located in Zambia and Malaysia;

- A Joint Coordinating Board, comprised of representatives of the sponsoring agencies, donor agencies, and participating countries, will act as the governing body of the Special Program. WHO will act as the Executing Agency, and the World Bank will serve as fiscal agent.

Criteria for Selecting the Six Diseases

- Impact of the disease as a public health problem (includes prevalence and incidence of infection, morbidity, mortality and disability, incidence trends, population at risk, consequences of disease in humanitarian, social, and economic terms);

- Absence of satisfactory methods for control of the disease in countries where it is prevalent;
- Identification of research which leads to improved control methods;
- Applicability of the disease as a research model for the study of other diseases;
- Coherence (for example, five of the diseases are vectorborne; in four, the vectors are insects; two have the same vector in some areas).

Scope of Operations and Priorities

- The six diseases to be emphasized in order of priority are:
  - Malaria;
  - Schistosomiasis;
  - Filariasis (including onchocerciasis);
  - Trypanosomiasis (African and American);
  - Leprosy;
  - Leishmaniasis;
- Development efforts are to be focused on drugs (chemotherapy and chemoprophylaxis), vaccines (immunotherapy and immunoprophylaxis), methods for biological control of vectors, and diagnostic tests (especially immunodiagnosis) which are simple to perform, the socioeconomic aspects of diseases, and the establishment of greater research potential, particularly in the affected countries;
- Some intra-disease priorities:
  - Malaria: long-term emphasis on chemotherapy and immunology, short-term emphasis on improving current methodologies in malaria control (especially research on improving vector control strategy);
  - Schistosomiasis: drug development and immunology;
  - Filariasis: chemotherapy, animal models, and *in vitro* culture;
  - African trypanosomiasis: chemotherapy, immunology and epidemiology, and vector ecology and control;
  - American trypanosomiasis: operational research, chemotherapy, immunopathology, and immunoprotection;
  - Leprosy: immunology, therapy;
  - Leishmaniasis: clinical pathology, chemotherapy.

Potential U.S. Research Inputs

- Pharmaceutical industry:
  - New drugs needed for all six diseases;
  - Research within special program context;
  - In-house training of scientists from developing countries;
  - TDR facilities available to screen new therapeutic agents;

- Federally supported research:
  - Priority to research in designated scientific areas, especially malaria vaccine and antimalarial drugs;
  - Coordination with special program effort;
  - Mechanism for implementing and monitoring U.S. efforts;
  - Training of research workers from affected countries;

- Direct support for TDR:
  - Financial contribution to program;
  - Detailing of U.S. personnel.

EPI Objectives

- Help provide immunization against diphtheria, pertussis, tetanus, measles, poliomyelitis, and tuberculosis, where appropriate, for every child in the world by 1990;

- Reduce morbidity and mortality from other selected diseases threatening worldwide public health for which safe and effective vaccines exist or become available, by establishing permanent immunization services.

Research Problems Being Addressed

- Augmenting stability of measles, polio, and DPT vaccines;

- Decreasing reactogenicity of pertussis vaccine;

- Improving vaccine delivery systems through better freezers, refrigerators, cold boxes, and temperature markers (the "cold chain");

- Reducing need for "booster" immunizations (DPT, polio);

- Improving techniques of vaccine administration (jet injectors, bifurcated needles – BCG, tetanus);

- Improving immunization coverage rates;

- Evaluating field operations;

- Improving community awareness and motivation;

- Managing programs;

- Improving vaccine control systems;

- Improving disease surveillance systems.

Potential U.S. Research Input

- Federally supported and pharmaceutical industry research to improve vaccines and to develop new vaccines (cerebrospinal meningitis);
- Operational research in implementing expanded immunization programs in several developing countries;
- Research on improving the "cold chain."

Chapter 7

Development and Supporting Assistance

Economic status is an important determinant of the health of a nation, as well as that of an individual or family. In turn, the health status of the individual citizen is crucial to the economic status of a nation. In continuing our assessment of international health, we must learn how U.S. involvement in international health activities affects the total development of other countries. We need to examine, too, how our development assistance efforts have affected world health. This chapter is intended as a first step toward that end.

Development assistance to low-income countries contributes to a complex and integral social and economic development process. No single action produces "development." Overall economic growth has often failed to bring gains for the needy. Even providing medical care more widely to the population does not always improve health. Improving health, like fostering more general development, requires simultaneous, coordinated policies affecting many of the social and economic conditions of a nation. Only by an integrated approach are the objectives of social development, economic growth, and satisfaction of basic human needs likely to be attained.

Good health is both an objective of and a contributory element to development. Health needs are basic physical and psychological human needs, and include:

- Prevention and reduction of disability and discomfort from mental and physical disease;
- Prevention and reduction of malnutrition and its adverse consequences;
- Care for the suffering;
- Modification of childbearing patterns according to the needs of the family and community;
- Protection from and care for injury and disability from accidents and disasters.

Social and economic development must meet these needs if welfare is to be improved. Economic growth must be reflected in the improved physical and psychological condition of people.

Healthy people and health programs contribute to development in many ways. Since development programs for low-income countries necessarily rely on increased employment and labor-intensive technology, the capacity of the labor force to work and to learn becomes crucial. Illness and premature death reduce the productive potential of the labor force. With good health and nutrition, worker productivity is increased. Good health is also required if education and other investments in human resources are to be fruitful. Providing health services is an increasingly important socioeconomic activity, and serves as a model of modernization and a vehicle for useful production and employment. Thus, enhancement of health services and human welfare is an integral part of development strategy.

For decades, foreign assistance has been a major aspect of U.S. foreign policy. Three reasons are most frequently given to justify such assistance: (1) Encouraging the development of other countries is important in promoting world order. (2) A healthy, growing world economy contributes to the growth and health of the economy of the United States. (3) Because the people of the United States have strong humanitarian beliefs, they have long supported humanitarian programs in poor countries.

The Foreign Assistance Act of 1973 emphasized aiding the poor majority in developing countries, particularly in rural areas, through food and nutrition, population and health, and education and human resource development programs. Under this Act, the following criteria were established, any one of which qualifies a country or group of individuals for U.S. development assistance:

- Per capita income below $150 per year (in 1969 dollars);
- Daily diet of less than 2,160 to 2,670 calories (depending on the country);
- Several health indicators: life expectancy at birth below 44 years; infant mortality over 33 per 1000 children ages 0-1; birth rates over 25 per 1000 population; or access to broadly defined health services for under 40 percent of the population (House Committee on International Relations, 1975).

More recently, the draft Foreign Assistance Act of 1978 suggests a development strategy emphasizing growth and coordination of a basic human needs policy with U.S. human rights policy. This legislation also focuses on biological needs related to nutrition, health, and human reproduction, as well as other basic human needs.

Achieving a decent standard of health for people everywhere should be of paramount importance to any U.S. international health initiative. Table 10 illustrates the relationship between poor health and poverty. In the developing world, birth rates are generally high, life expectancy short, and hunger prevalent. Infant mortality in Africa is roughly 10 times greater than in the developed world. However, countries that have focused development efforts on the basic needs of their population show far better health, and often greater general economic progress, than other countries with similar limitations. We have seen estimates that if every low-income country could match the performance of the few outstanding examples, 10 million deaths would be averted each year.

Although tropical diseases should receive increased attention, the basic syndrome of poverty, population pressure, hunger, disease, and death is probably a more important field of study. Illness and poor nutrition exacerbate each other in a health cycle of continuing decline. Health problems are most prevalent and most

Table 10. Health Characteristics in Selected World Areas and Countries, 1977

	Per Capita GNP Units	Population in Millions	Birth Rate* per 1,000 Population	Death Rate* per 1,000 Population	Infant Mortality Rate per 1000 Live Births	Life Expectancy at Birth (Years)	Percentage Population Below 15 (%)
World	1,360	4,082	30	12	103	59	38
Selected Developing Country Areas:							
Africa	340	423	45	19	154	46	44
Asia	450	2,325	32	12	116	56	38
Latin America	940	336	36	9	78	62	42
Selected Developed Countries:							
United States	6,640	217	15	9	16	72	26
Sweden	6,720	8	13	11	8	75	21

*Small variations in birth and death rates can be misleading unless the age structure of the population is also considered; e.g., percentage of population below age 15.

Source: Extracted from 1977 World Population Data Sheet of the Population Reference Bureau, Inc., using latest available data, primarily from U.N. sources.

fatal in the under-five age group. In the weakened children of poor countries – who are all too often denied even basic medical services – diseases for which simple cures exist wreak terrible havoc; childhood death is frequent, disability common, and survival to full physical and mental potential rare. The health problems of older children and adults are also severe, and of major economic and social importance to low-income countries. Thus, any developmental or humanitarian approach to the basic needs of poor people must deal with the health of the family and the community as a whole, with special attention to the most vulnerable group – mothers and small children.

Priority health-sector activities include: health planning; development of integrated, low-cost health delivery systems and infrastructure; improvement of nutrition; promotion of family planning; provision of water and environmental sanitation; control of communicable disease; and disaster relief. These will be discussed in detail in the section on current health assistance programs later in this chapter.

Major Principles of International Health Assistance

There are two important and potentially conflicting principles that the United States must consider in its involvement in international health and development assistance. The first is a fundamental respect for the sovereignty and right to self-determination of all countries. The second is the desirability of promoting self-sufficiency so that countries can deal with their own health needs on a continuing basis. These two principles may conflict when low-income countries invite the United States to participate in health programs which seem to perpetuate dependency, and our desire to respect the host country's judgment suggests that we let them decide which programs are best. The likelihood of such conflicts makes it increasingly important for the United States to define its own principles of international health assistance within the context of defining an international health policy.

We must also understand that developing countries have strong opinions about development assistance. They would prefer an international economic system in which they did not need concessionary financial assistance, but they recognize the existing need for substantial aid. In accepting assistance, leaders of developing countries understandably wish to maximize their control over resource allocation. There is continued opposition to the threat of neocolonialism or to the creation of dependence on richer countries. Moreover, from their viewpoint, health-sector assistance often has relatively low priority compared with other types of financial aid. In part this view reflects a failure of health officials to clearly define and communicate the full value of health services in development. In part it results from the resistance by the economic, social, and political institutions of developing countries to redistributive financing typically encouraged by external health-sector investment assistance.

There are also traditional attitudes in many countries which reduce the interest in external health-sector financing. Although there is great respect in developing countries for the technological expertise of the United States and the rest of the

206

developed world, it is tempered by increasing awareness of the need to select and tailor technology to particular situations. Finally, developing countries are increasingly sensitive to the way aid is provided and to the behavior of foreign officials. Respect is demanded, and Americans rendering development assistance should show respect, directly and indirectly, by learning the language, understanding the culture, and adapting to other facets of the societies in which they work.

Some general principles to consider in any health assistance approach are to:

- Develop indigenous capacity in the host country;
- Select approaches appropriate to the specific conditions of the location in which services are to be delivered;
- Promote replicable and affordable health services for the entire host country population with careful consideration of national manpower and financial resources;
- Concentrate on prevention of health problems, since preventive services are generally more cost-effective than are curative services;
- Recommend front-end loading programs, that is, those which involve donor assistance for initial investment but which can be operated by a country with limited resources;
- Develop complementary packages of services, within and across sectors, that as a whole afford gains in efficiency and effectiveness.

To ensure that humanitarian objectives are most fully attained, we must choose approaches which will affect the very poorest portions of the population, whether they are minority groups within more developed countries or the rural majority in developing countries. Health activities should be concentrated in the villages and the poorest urban neighborhoods.

In collaboration with other countries, the United States can encourage the improvement of health by identifying existing problems and opportunities, as well as by offering incentives such as partial financing and technical assistance. In many cases, we have seen that a small foreign assistance contribution can stimulate larger host country contributions to valuable programs. Criticism of many low-income countries has focused on the lack of continuity in developmental programs. The United States should encourage such continuity by developing programs which support or encourage the institutionalization of health service system reforms or the national extension of services, with 5- to 10-year periods of support. Obviously such programs should include careful evaluation of progress and provisions for termination for lack of compliance, both to encourage continuity of host country activity and to ensure proper utilization of U.S. funds.

Approaches to Health Assistance

The manner in which the United States is involved in development assistance and international health activities continues to be a topic of debate. Approaches to involvement must be discussed separately for developed, intermediate, and least developed countries. Obviously, U.S. collaboration in health activities will differ in each category because of dissimilarities in available resources, technology and manpower, and the health needs of the populations. U.S. involvement with other developed countries, for instance, may include collaboration in research activities, technology exchange, and jointly planned developmental health assistance to lower-income countries. With the intermediate countries, U.S. involvement should focus on portions of the population with a lower standard of health care or on special trade relationships for health goods and services. In the least developed countries, U.S. health activities should be pursued in the context of development assistance.

We must recognize that U.S. involvement in development assistance already takes varied forms, depending on the country and the most appropriate kind of health-sector collaboration. Limiting our development assistance approach to only one type of country would limit our ability to respond to real needs that exist at many different levels.

The various participants in development assistance also contribute in different ways. The international development financial institutions may find it advantageous to finance health projects in middle-income countries since their constituent assemblies, which are heavily weighted to such countries, may demand loans, and intermediate countries have the financial and administrative capabilities to make development loans sound "more bankable." Similarly, U.N. agencies will continue to have strong interests in intermediate countries.

AID could increase its influence by concentrating all of its financial and professional resources in the poorest countries. Moreover, administrative costs might be reduced by minimizing the number of countries in which assistance is offered and by increasing the size of assistance projects. However, as the principal vehicle for supporting assistance, AID will obviously continue to work in all countries judged suitable for such assistance, regardless of income level. Health programs will be a useful part of this assistance, but bilateral financial assistance, particularly to North African and Central American countries, might also be a useful adjunct to overall foreign policy.

The Peace Corps, which has secondary goals of providing U.S. citizens with knowledge of foreign countries and of acquainting foreign countries with Americans, may be well-advised to work in many low- and intermediate-income countries to achieve these goals.

DOD, balancing goals of research in tropical diseases, military assistance, and development assistance with the requirements for military presence abroad, may also choose to work in middle-income countries.

HEW will generally have three forms of contact with middle-income countries. HEW is a natural conduit for reimbursable technical assistance, especially when it has provided technical support to the health program before a country moves from poor to intermediate status. HEW will often find collaborative projects to be of mutual benefit to the United States and middle-income countries, particularly since such countries have expanding populations with health conditions and services similar to ours. Finally, HEW should have an increasingly technical and regulatory function with respect to commerce with intermediate-income countries.

Regardless of the agency or specific kind of health activity involved, the United States should strive to develop a coordinated bilateral and multilateral approach emphasizing cooperative programs for mutual interest, reimbursable assistance, commercial health-sector activities and, where needed, bilateral financial assistance in appropriate countries. Approaches should be evaluated in terms of the needs and the overall health, economic, and political situation of the individual countries involved.*

Effects of Financial and Technical Health Assistance on Developing Countries

The presence of foreign agencies working in health programs in a developing country has an impact that extends beyond the actual financial or technical assistance provided. By advocating the needs of the poorest majority, these agencies attract the attention of the host government and encourage continuity and commitment in meeting these needs.

Currently AID and international financial institutions appear to emphasize the financial aspects of development assistance. Such financial assistance has the obvious potential benefit of increasing the rate of investment in health services in poor countries. This is particularly important in financing foreign exchange requirements for medical equipment and other goods which cannot be produced in low-income countries. Moreover, since foreign assistance is preferentially directed to programs serving the poor majority, it encourages host countries to fund these programs by decreasing the risk involved and providing concessionary counterpart funds for host country investment. This gives programs for the poor an advantage over other programs. Obviously, as the amount of foreign assistance grows in respect to the national budget of the host country (health or overall), the influence of foreign donors increases.

Technical assistance is directed primarily at improving the way things are done. In recent years there has been increasing concern for developing technology more appropriate to the needs of low-income countries. Advocates of this position have tended to stress technology with low per-unit costs which can be readily used by paraprofessionals. The developing countries themselves, however, have increasingly demanded access to industrial production processes using advanced technology, currently found predominantly in developed countries.

---

*The so-called Humphrey bill was introduced in 1978 and called for a permanent foreign aid agency with Cabinet-level status. It would combine both bilateral and multilateral authorities, and, if enacted, would stress these issues.

Whatever the particular technologies in question, there must be a collaborative decision between the developing country and the group advocating the technology regarding the most appropriate technology transfers, adaptations, and uses. Among the most active in emphasizing technical assistance have been WHO and U.S. educational institutions. Multinational health-related corporations have also contributed to specific aspects of technology transfer.

Current Programs in International Health Assistance

Low-income countries have generally shown increasing concern for health in recent years. Rapid economic growth has been accompanied by declining death rates and more recently by some decline in fertility, as well as by increasing expenditures for health services and resources. Yet experience suggests that such benefits do not accrue automatically to the poor. A world consensus is developing that programs must be designed explicitly and demonstrably to help meet the basic human needs of the poor majority in low-income countries.

Over the past decade there has been little increase in U.S. dollar expenditures on official foreign assistance as compared with those of other developed countries (see Figure 10). Consequently, the United States now contributes roughly one-quarter of the total development assistance provided by countries serving on the Development Assistance Committee. As an indication that assistance to low-income countries is now recognized as a joint responsibility of richer nations, this shift in the source of contributions is a positive development.

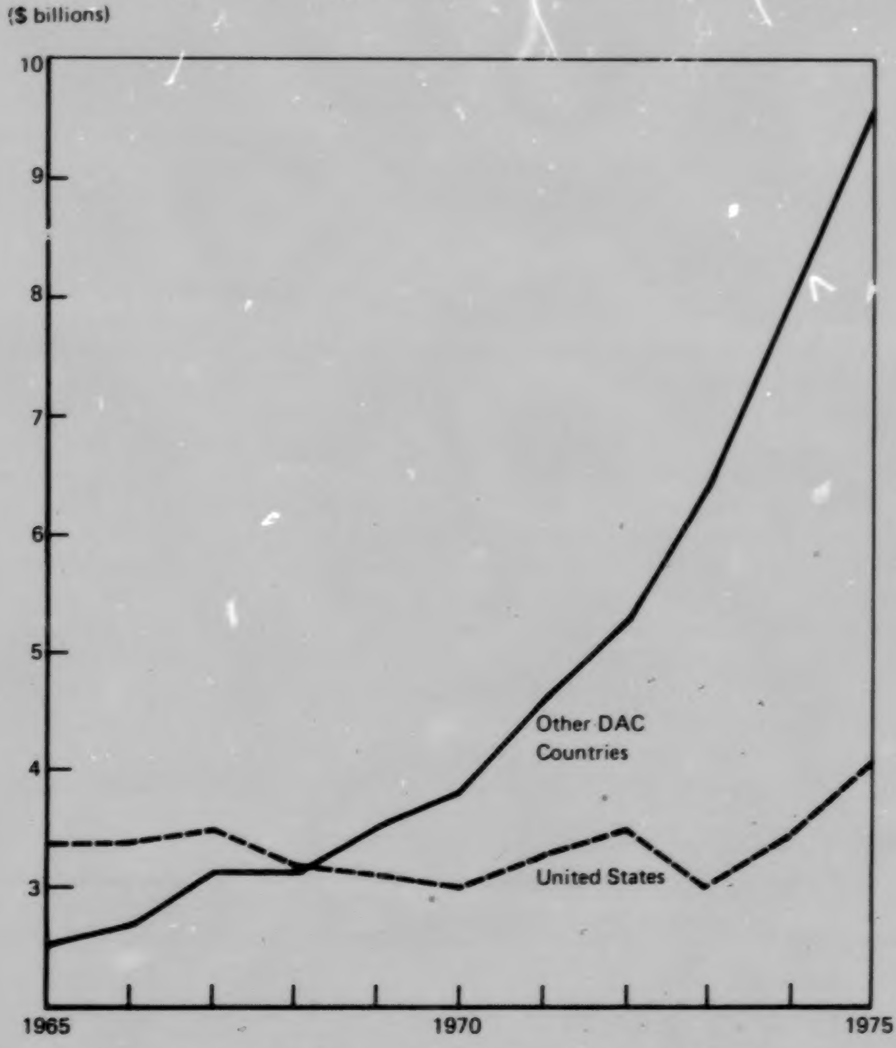
Figure 11 indicates that U.S. foreign assistance has not kept pace with inflation and economic growth in this country. In fact, the last decade saw a consistent reduction of the portion of gross national product (GNP) devoted to foreign assistance. Since, on the average, other developed countries have continued to devote roughly 0.4 percent of GNP to foreign assistance, the United States has fallen considerably behind in terms of the portion of its resources devoted to official development assistance. Recent policy statements by President Carter and Secretary of State Vance indicate that the United States will, in the near future, increase the proportion of GNP allocated to international assistance.

Multilateral Organizations Engaged in Health Assistance

The United Nations Family of Organizations. Several of the U.N. organizations have major responsibility for and impact on international health: WHO, PAHO, UNFPA, FAO, UNICEF, and UNRWA. With the exception of UNRWA, these organizations typically emphasize technical assistance for developing countries and the development of international forums on key health issues. These are discussed in more detail in Chapter 2.

Figure 10. Official Development Assistance of United States in Comparison with All Other DAC Countries, 1965–75

From 1965 to 1975, net U.S. official development assistance (ODA) only increased from $3.4 billion to $4.0 billion (with a low point of $3.0 billion in 1973). In contrast, the ODA of all other DAC countries increased nearly fourfold, from $2.5 billion in 1965 to $9.6 billion in 1975.

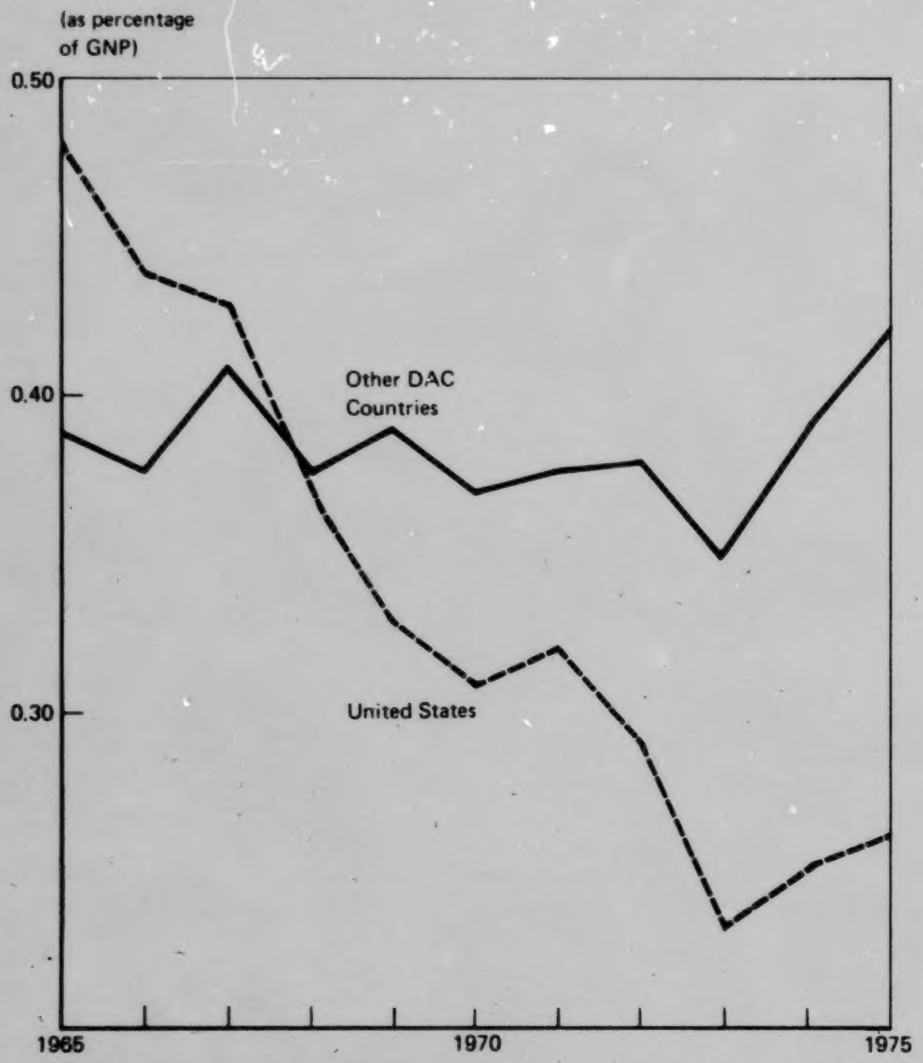


Note: Finland and New Zealand not included until 1970. Portugal not included after 1972.

Sources: Based on reports by the Chairman of the Development Assistance Committee: Development Co-operation, 1973 Review (Paris: OECD, 1973), pp. 181 and 189; Development Co-operation, 1975 Review (Paris: OECD, 1975), pp. 195 and 256-67; and Development Co-operation, 1976 Review (Paris: OECD, 1976), pp. 207 and 268.

Figure 11. Official Development Assistance of the United States and All Other DAC Countries, as Percentage of GNP, 1965-75

From 1965 to 1975, net U.S. CDA as a percentage of GNP decreased by nearly half – going from 0.49 percent to 0.26 percent. The ODA of all other countries as a percentage of their combined wealth has remained fairly constant.



Note: Finland and New Zealand not included until 1970. Portugal not included after 1972.

Sources: Based on reports by the Chairman of the Development Assistance Committee: Development Co-operation, 1973 Review (Paris: OECD, 1973), pp. 181 and 189; Development Co-operation, 1975 Review (Paris: OECD, 1975), pp. 195 and 256-57; and Development Co-operation, 1976 Review (Paris: OECD, 1976), pp. 207 and 268.

International Financial Institutions. The World Bank, Inter-American Development Bank, Asian Development Bank, and African Development Bank are major providers of financing for infrastructure development. These institutions play a dramatic role in improving health. Historically, they have been reluctant to invest in health projects per se, but have financed public works, including household water and sewage projects. In recent years the banks have become increasingly involved in population and nutrition activities and have included medical services in integrated regional development projects. They are described in more detail in Chapter 5.

U.S. Bilateral Assistance

The United States has a long history of direct support for health-sector investments as a part of foreign assistance. The U.S. Government provides assistance through bilateral agreements which involve a number of agencies (Table 11). The United States is also a major contributor to multilateral agencies of which it is a part. Finally, private individuals and nongovernmental organizations also play an important role in health assistance. Some of the most significant activities are described in the following paragraphs. Table 12 indicates the magnitude of U.S. expenditures.

The Department of State. The State Department has overall responsibility for U.S. foreign policy and for seeing that foreign assistance is consistent with other aspects of foreign policy. It is also responsible for representing the United States to other donor nations, to recipient nations, and to international organizations of the U.N. family. The State Department therefore has a responsibility in the area of development coordination, but it does not directly implement foreign assistance programs.

The Agency for International Development. AID manages the U.S. international bilateral assistance program, coordinating agricultural, health, education, and other development programs.* The overall development assistance policy incorporating the strategies of the various sectors is defined for each country receiving assistance by AID personnel in that country in cooperation with local officials. The health contribution to development assistance includes aid in health planning; development of integrated health service delivery systems; and specific programs in nutrition, population, water and environmental sanitation, communicable disease control, and disaster relief.

AID provides health-sector financial assistance primarily through grants (to the lowest-income countries) and loans at low-interest rates (concessional). Health projects normally involve counterpart funds in the host country. U.S. funds, which are largely spent in the United States, are used for technical assistance, equipment, and commodity costs.

---

*Interagency development coordination is vested in the Development Coordinating Committee.

The AID program is divided into development and supporting assistance categories. Development assistance is allocated primarily on technical grounds of human need and project quality. Supporting assistance is also intended to be used for social and economic development, emphasizing the basic human needs of the poorest majority, insofar as possible. Decisions to allocate supporting assistance funds, however, are made primarily on the basis of economic and political concerns.

Table 13* illustrates the evolution of AID funding of health programs. Population program funding has increased consistently and rapidly since 1965. Direct health programs (health planning, health service delivery system investment, and communicable disease control) have varied widely. These expenditures peaked in 1968, declined until 1976, and have begun to rise since that date as a result of implementation of the new directions of the 1973 Foreign Assistance Act. Since portions of the population budget were earmarked for more general health service investment, these categories illustrate program motivation rather than describe actual activities. The nutrition situation is even more confused in terms of budget history, since health-sector nutrition interventions cannot be separated from agricultural-sector food interventions. AID programs involving water supply and environmental sanitation were funded at $40 and $45 million in FY 1976 and FY 1977, respectively, but FY 1978 allocations were increased to $70.9 million.

The Peace Corps. A total of 717 Peace Corps volunteers (PCVs) were participating in health programs abroad in 1976. PCVs work primarily in programs which have the greatest impact at the village level. Activities include nutrition, environmental sanitation, communicable disease control, and integrated health service delivery. PCVs are only involved in family planning programs at the explicit invitation of the host government. They typically participate in disaster relief activities as the need arises.

The Department of Defense. DOD conducts a vigorous program of health research, which includes operation of a network of research facilities in low-income countries and a data bank of health statistics. Military assistance in many countries includes medical and/or community action components. Consequently, DOD, working through counterpart military establishments, has a number of health assistance activities in low-income countries.

The Department of Health, Education, and Welfare. Through AID, HEW provides various health assistance services such as professional consulting and the operation of occasional programs (such as the smallpox campaign in West Africa). The Department of State has delegated to HEW the responsibility of representing the United States in technical matters before WHO. HEW's domestic activities, including biomedical research and regulation of health manpower training in the United States, have profound influence on developing countries. Finally, HEW is the agency responsible for many cooperative bilateral health agreements. There is both the potential capacity and the precedent for HEW to ensure continuity of bilateral health activities with those countries on the economic borderline for foreign assistance.

---

*See page 190.

Table 11. Bilateral Development Assistance by U.S. Government Agencies

Action

- Manpower Training
- Maternal and Child Health Services
- Nutrition
- Health Planning
- Health Education
- Delivery of Health Services
- Environmental Health
- Immunization Campaigns
- Disabilities/Mental Illness Programs

Agency for International Development

- Manpower and Institutional Development
- Health Auxiliary Training
- Organizing Medical Services
- Disease Prevention and Control
- Delivery of Health Services
- Food Fortification
- Population Planning
- Introduction of New Food Technologies
- Emergency Relief Services
- American Schools and Hospitals Abroad
- Environmental Health Services
- Health Services Research
- Demographic Data Collection
- Fertility Control Research
- Development of Indigenous Foods
- Disaster Preparedness Research
- Health Planning
- Nutrition Planning
- Environmental Health Planning
- Technical Cooperation with International Organizations
- Special Foreign Currency Programs

Agriculture

- Policy Formulation for Health and Nutrition Projects of Development Banks
- Food Aid Programs (P.L. 480) Through AID
- Technical Assistance in Food and Nutrition
- Cooperative Research
- Agricultural Training Programs

Defense

- Disaster Relief Services
- Tropical Disease Research

Environmental Protection Agency

- Technical Assistance in Environmental Health

Health, Education, and Welfare

- Biomedical and Disease Research
- Geographic Health Studies (NIH)
- Disease Prevention and Control (CDC)
- Laboratory Support and Collaboration (CDC)
- International Organization Policy Development
- Health Planning
- Health-Sector Assessments

Inter-American Foundation

- Training and Education
- Health Services Delivery
- Health Planning and Administration

Interior (Trust Territories)

- Manpower Training
- Renovation of Hospitals
- Organizing Medical Services
- Disease Prevention and Control

National Aeronautics and Space Administration

- Communications Satellite
- Satellite Remote Sensing
- Ground-Based Water Treatment Plants

National Science Foundation

- International Cooperation in Studies on the Environment, Biology, Tropical and Communicable Diseases

Overseas Private Investment Corporation

- Guarantees, Loans, and Insurance for Private Firms in:
  (a) establishment or expansion of services related to health and medicine
  (b) projects not primarily related to but including health and nutrition
  (c) construction of health facilities

Canal Zone Government

- Environmental Health in Panama
- Disease Control in Panama
- Emergency Ad Hoc Support to Disaster Victims

State

- Emergency Ad Hoc Medical Support
- Assessed Contributions to U.N. System Agencies
- Science Attachés/Consular Officers
- Policy Monitoring and Representation to International Organizations

Treasury

- Assessed Contributions to the Development Banks

Table 12. U.S. Health-Sector Development Assistance by Program Area, FY 1976 (in Thousands of Dollars)

Program Area; Agency	Health Planning	Integrated Health Services Delivery	Nutrition	Family Planning	Environmental Sanitation	Communicable Disease Control	Disaster & Refugee Relief	Total
Bilateral Assistance:								
AID[1]	3,318	22,641	20,092	102,997	45,282	6,727	3,189	204,246
DOD[2]		413[16]				22,939		23,352
Peace Corps[3]		4,350	3,700	40	600	1,300		9,990
U.N. Agencies.								
WHO[4]	(28,156)	(35,958)	(3,432)	(6,091)	(16,239)	(49,034)		(138,910)
(U.S. contribution)*	7,077	9,042	872	1,534	4,074	12,314		34,913
PAHO[5]	(10,218)	(4,088)	(3,774)	(6,351)	(12,205)	(2,713)		(39,349)
(U.S. contribution)*	4,524	1,810	1,671	2,802	5,403	1,201		17,411
UNRWA[6]							(42,800)	(42,800)
(U.S. contribution)*							15,626	15,626
FAO[7]			(1,896)		(997)			(2,893)
(U.S. contribution)*			57		30			87
UNFPA[8]				(75,800)				(75,800)
(U.S. contribution)*				20,000				20,000
UNESCO[9]			(93)	(104)				(197)
(U.S. contribution)*			21	24				45
UNICEF[10]			(9,034)		(13,502)	(30,035)		(52,571)
(U.S. contribution)*			1,495		2,234	4,969		8,698
UNDP[11]		(8,600)		(600)	(7,800)	(4,000)		(20,000)
(U.S. contribution)**		2,270		160	1,920	1,050		5,400
International Financial Institutions:								
World Bank[12]			(19,000)	(6,800)	(231,600)			(257,400)
(U.S. contribution)**			884	316	10,776			11,976
IDB[13]		(28,700)			(80,400)			(109,100)
(U.S. contribution)**		4,230			11,840			16,070
ADB[14]					(74,200)			(74,200)
(U.S. contribution)**					13,620			13,620
AFDF[15]		(14,540)			(25,500)			(40,040)
(U.S. contribution)**		2,700			4,800			7,500
Total U.S. contribution	14,919	47,456	28,792	127,873	100,579	50,500	18,815	388,934

(Notes appear on pp. 188-189.)

Table 12. (Continued)

* Total FY 1976 U.S. contributions to institutional health-sector funding are estimated from the following formula:

$$\text{Total U.S. contributions to institution health programs} = \text{Total U.S. contributions to organization} \times \frac{\text{Health-sector expenditures by institutions}}{\text{Total expenditures by institution}}$$

Total U.S. FY 1976 contributions to each health program are estimated from the following formula:

$$\text{U.S. contributions to program area } X_1 = \text{Total U.S. contributions to institutional health programs} \times \frac{\text{Institutional expenditures for program area } X_1}{\text{Total institutional health expenditures}}$$

** Total FY 1976 contributions to health-sector loans are estimated from the following formula:

$$\text{Total U.S. contributions to health-sector loans} = \text{Total U.S. contributions to IFI, FY 1976} \times \frac{\text{Health-sector loans plus TA}}{\text{Total loans \& TA}}$$

Total FY 1976 U.S. contributions to health program area loans are estimated from the following formula:

$$\text{U.S. contributions to program area } X_1 = \text{Total U.S. contributions to health-sector loans} \times \frac{\text{Program area } X_1 \text{ loans}}{\text{Health-sector loans plus TA}}$$

Table 12. Explanatory Notes

[1] **Note:** Includes supporting and developing assistance.
Source: AID, Technical Assistance Bureau, Office of Health.
[2] **Source:** Office of Assistant Secretary of Defense for Health Affairs.
[3] **Source:** Peace Corps Program Grid 1976.
[4] **Note:** Estimates include only regular budget and are adjusted to include administrative and general regional funding proportionately within program area.
Source: Proposed Programme Budget for FY 1978, 1979, World Health Organization Document #236.
[5] **Note:** Estimates include PAHO funds only, exclusive of WHO contributions, and are adjusted to include administrative funding proportionately within program areas.
Source: Proposed Program and Budget Estimates, PAHO, 1977 and 1978. PAHO Document 141.
[6] **Note:** UNRWA's refugee relief health programs include nutrition, medical services, and sanitation improvement. (Estimates are based on calendar year 1976.)
Source: State Department, Bureau of International Organization Affairs.
[7] **Note:** Estimates include FAO Regular Program funds only, exclusive of contributions from UNDP. UNFPA, World Food Program (WFP), and UNEF.
Source: FAO (U.S.); State Department, Bureau of International Organization Affairs.
[8] **Note:** Estimates based on calendar year 1976.
Source: State Department, Bureau of International Organization Affairs.
[9] **Source:** State Department, Bureau of International Organization Affairs.

---

[10] **Source:** State Department, Bureau of International Organization Affairs.

[11] **Note:** Integrated Health Services includes training and noncommunicable disease control.

Source: State Department, Bureau of International Organization Affairs.

[12] **Note:**

A. Estimates include only direct health-sector loans and technical assistance (T.A.) by the World Bank and International Development Association (IDA) (exclusive of loans to Yugoslavia). Integrated development loans with a health component total an additional $272.5 million.

B. Direct U.S. contributions appropriated by Congress to IDA and IBRD in FY 1976 were relatively low compared to previous years; therefore, U.S. contributions to health sector as estimated in this table are small. U.S. Treasury, Office of IDB, estimates total U.S. financial participation in World Bank FY 1976 to be approximately 25 percent. Thus, a U.S. contribution of an estimated $64.4 million to World Bank health-sector loans.

Sources: World Bank Annual Report, 1976. U.S. Treasury, Office of International Development Banks; House Committee on Banking, Finance, and Urban Affairs, Subcommittee on International Development Institutions and Finance.

[13] **Note:** Estimates include only health-sector loans.

Sources: Inter-American Development Bank Annual Report, 1976: U.S. Treasury, Office of IDB; and House Committee on Banking, Finance, and Urban Development, Subcommittee on International Development Institutions and Finance.

[14] **Note:** Estimates include only health-sector loans. Integrated development loans with a health-sector component total an additional $130 million.

Sources: Asian Development Bank Annual Report, 1976; International Finance Annual Report of NAC, FY 1976, U.S. Treasury, Office of IDB; House Committee on Banking, Finance, and Urban Affairs, Subcommittee on International Development Institutions and Finance.

[15] **Note:** Estimates include only health-sector loans.

Sources: African Development Fund Annual Report, 1976; U.S. Treasury, Office of IDB; House Committee on Banking, Finance, and Urban Affairs, Subcommittee on International Development Institutions and Finance.

[16] **Note:** Includes DOD health training of foreign nationals.

[17] **Note:** Utilizing higher estimates of U.S. participation in World Bank as discussed in note 11, we find that total U.S. contributions to international health sector amount to $454.9 million.

Other Agencies of the Government. Other government agencies marginally participate in international health assistance. Nonetheless, agencies such as EPA, ERDA, NASA, NSF, NAS, and the VA have special areas of competence and interests applicable to international health assistance. The **Treasury Department** plays the key role in determining U.S. policy toward international financial institution lending in development, especially health development.

The Private, Nonprofit Sector. This sector, which is discussed in detail in Chapters 4 and 5, has a long history of involvement in international health. Major foundations have a particularly noteworthy record of accomplishment. Hundreds of private voluntary organizations, often religious in nature, play a large role. A recent study identified nearly 100 U.S. organizations providing health services in Guatemala and suggested that nearly a quarter of the health services in the rural areas were provided by U.S. or other foreign PVOs. Professional associations maintain an extensive network of communications with colleagues and sister organizations in developing countries. Finally, U.S. educational institutions play a major role in training leaders in all the health professions and in providing technical assistance and research relevant to the needs of developing countries.

The Commercial Sector. The United States is deeply involved in commerce with developing countries. This topic is dealt with more extensively in Chapter 5. U.S. commercial firms provide goods and services to the health sector in developing countries funded either by indigenous sources or foreign assistance. Particularly noteworthy in this regard are the U.S. medical equipment, supply, and pharmaceutical companies. These firms have on occasion been extremely effective in reaching poor people in low-income countries with appropriate drugs and services, especially when working with the private sector in host countries. U.S.-based multinational commercial firms have significant effects on health in developing countries through direct action with their employees abroad, and indirectly through their investments and the impact of their products. Because of their influence, these firms bear a social responsibility within our development assistance policy. Finally, the effects of commercial technology transfer and international trade on the economics and human needs of low-income countries are of major foreign policy concern, far beyond the scope of this report.

Table 13. AID Population Planning and Health Programs — Obligations/Loan Authorizations/Planning Levels, FY 1965-78 (Expressed in Millions of Dollars)

Fiscal Year	Population	Health	Total	% Population
1965	1.9	32.4	34.3	5.5
1966	3.8	58.7	62.5	6.0
1967	4.3	98.1	102.4	4.2
1968	34.4	131.3	165.7	20.8
1969	43.9	38.1	82.0	53.5
1970	73.1	37.1	110.2	66.3
1971	94.0	57.7	151.7	62.0
1972	120.0	35.4	155.4	77.2
1973	121.7	42.9	164.6	73.9
1974	100.1	81.5	181.6	55.1
1975	100.0	54.5	154.5	64.7
1976	103.0	54.4	157.4	65.4
Transitional Quarter	32.5	19.1	51.6	63.0
1977 (Estimated)	143.6	94.2	237.8	60.4
1978 (Requested)	177.0	120.9	297.9	59.4
Total	1,153.3	956.3	2,109.6	54.7

Note: Table does not include operating and administrative expenses.

Source: PHA/PROG – PPC/PB – Revised 1/31/77

Goals of International Health Assistance

The forecast for health in low-income countries in the next decade is not bright. Table 14 illustrates the relationship between poverty, poor nutrition, high mortality, high birth rates, and short life expectancy. The complex synergism of poverty, underdevelopment, and poor health will not easily be broken. However, as Table 14 also shows, by focusing on basic human needs, countries can greatly improve health even in the face of severe economic constraints.

Current understanding of international health goals varies, particularly in relation to goals in other areas such as foreign policy, development assistance, commerce and trade, and health of U.S. citizens. International health goals are those goals which relate most directly to basic human health needs. At present, there is no universally accepted set of international health goals or standards to measure the extent to which basic human needs in health are being met. In order for U.S. international health activities to effectively advance health, nutrition, and population goals, the United States should develop a set of international health standards as part of its efforts to establish a U.S. international health policy. These standards will differ from goals. Goals imply commitment to action. Standards define what we believe are basic human needs. Once standards are defined, choices can be made among existing needs according to our willingness and ability to commit resources to meet a specific need, and according to the total group of needs identified and their relation to other U.S. policies and goals.

One might argue that the United States should not set international health goals because we shall not be able to meet them. Obviously we cannot do so unilaterally. However, it is even more important to realize that health in poor countries will only be improved by the concerted action of those countries themselves in achieving economic development and increased employment; in distributing wealth, income, and employment equitably; and in meeting the basic social and economic needs of their inhabitants. Foreign assistance will be marginal to this process. Moreover, with the present state of health planning knowledge, it is not technically possible to determine the extent or quality of services needed to achieve a general health status goal, or even to specify accurately the resources needed to provide a given level of services. In such a situation of relatively little power and high uncertainty, there is a significant risk that we will not be able to achieve goals or even to measure goal achievement. Further, the failure of a program to meet goals might engender undue dissatisfaction with the program and its implementing agencies.

However, the benefits of explicit goals are: (1) the potential to coordinate and to catalyze a more extensive and effective multi-donor attack on health problems in poor countries than would be possible otherwise and (2) to explain the nature of the program more clearly and effectively to Congress and the public. For these purposes, two levels of goals appear worthy of consideration.

220

Table 14. Relationship Between Poverty, Poor Nutrition, High Mortality, High Birth Rates, and Short Life Expectancy in Five Groups of Nations

Group of Nations (GNP per capita)	Infant Mortality (per 1000 Live Births)		Life Expectancy Cycles (Years)		Crude Birth Rate (per 1000)		Per Capita Calorie Supply (Per-cent of MDR)	Per Capita Protein Supply (Grams/Day)		Death Rate 1-4 Years (per 1000)	
	Average	Lowest	Average	Highest	Average	Lowest	Average	Total	Animal/ Pulses	Average	Range
Group 1 . . . . ($100 and below)	N/A	133.0	43.7	48	44.9	39.0	89.7	56.5	17.6	N/A	N/A
Group 2 . . . . ($101-200)	113.1	50.0	46.5	66	48.2	31.0	98.1	57.7	18.0	N/A	33.0
Group 3 . . . . ($201-374)	100.2	36.0	55.9	66	37.6	28.0	98.8	59.3	19.1	N/A	6.0-21
Group 4 . . . . ($375-1,000)	55.6	32.0	61.4	71	32.9	16.0	103.2	68.2	29.3	3.3	0.4-11
Group 5 . . . . ($1,000 & above)	19.1	11.0	71.6	75	17.1	13.2	117.7	89.4	52.5	1.0	0.4- 2

Note: Data for 1970 in Social Indicators, pp. 506-528.
Source: The World Bank. 1976. World Tables, 1976. Baltimore, Md.: Johns Hopkins University Press.

We may choose goals typical of the relatively successful developing countries over the past decade. For example, extension of life expectancy at birth by 5 years per decade was apparently accomplished in the 1960s by 25 or more developing countries (with life expectancy under 60). However, many countries have not been so successful. If goals of this nature were set and efforts were made to encourage all countries to meet them, there would be a good possibility of improving the lives of hundreds of millions of people and a reasonable expectation that international and regional goals might be met.

Alternately, one may single out goals that have been achieved by only the most successful developing countries in the past: for example, extending life expectancy by 10 years per decade. We believe such goals would probably not be met. They would, however, symbolize greatly increased international dedication to health in poor countries. To have a reasonable chance of achieving such goals, not only would development assistance have to be doubled, but an increasing portion of that assistance would have to be allocated to programs meeting the basic human needs of the most disadvantaged.

We have, then, three options:

- To set health goals for the developing world on a country-by-country basis rather than globally, in collaboration with host countries, through a pragmatic assessment of U.S. interests and potential;
- To set goals proved attainable by many countries in recent decades, such as an increase in life expectancy in poor countries of 5 years per decade;
- To set very ambitious goals symbolizing a major new commitment to the health of the poor, such as a 10-year increase in life expectancy per decade.

We must emphasize, however, that rapid improvements in health would require a concerted effort on an international scale. The low-income countries themselves would have the major responsibility for achieving such improvements; they would have to show exceptional discipline and interest in allocating more resources and sustaining programmatic efforts. The entire community of donor nations would also have to back such an effort, with a program of foreign assistance aimed at meeting the basic human needs of poor people. In the event of world consensus on health needs, multilateral agencies would obviously be an important channel of assistance.

If low-income countries can sustain a major effort that involves continuing the essential commitment of their governments and increasing resources, and if donors cooperate, the following achievements in health may be possible within the next decade:

- Increase in life expectancy by 5 to 10 years per decade for those countries with average life expectancy at birth less than 60 years;

- Reduction in infant mortality by 5 to 10 deaths per 1000 live births per year for countries with infant mortality above 50 per 1000 live births;
- Decrease in death rate in children ages 1-4 by 1 to 3 deaths per 1000 children per year in countries with preschool mortality above 6 deaths per 1000 children;
- Decrease in birth rate by 1 or more live births per 1000 population per year for countries with crude birth rates over 25 per 1000 population.

The following specific service targets designed to equitably extend access of health services are illustrative of those attainable by countries willing to make the necessary commitment in collaboration with donors:

- Extension of basic health services to at least 60 percent of the population in the next decade. These services should be appropriate to the economic and social conditions of the country, but should include at least health education, immunizations for common childhood diseases, prenatal care and delivery of babies by trained personnel, nutritional surveillance, rehabilitation where needed, and first aid;
- Expansion of programs for the control of the major communicable diseases for which effective, affordable technology now exists. Immunization for diphtheria, whooping cough, tetanus, polio, and measles should be provided for 80 percent of preschool children in each country. Countries which cannot achieve 80 percent coverage should nevertheless increase coverage by 5 percent per year. Malaria, schistosomiasis, onchocerciasis, tuberculosis, and trypanosomiasis control or eradication programs should be initiated by 1985 wherever these diseases are prevalent;
- Availability of family planning services, economically and geographically, to everyone in the world by 1990;
- Provision of household connections to water services to 80 percent of the urban population in each interested country by 1990, or reduction of the proportion without such connections by at least 50 percent. Water should be provided to 50 percent of the rural population in each country by 1990, or the proportion without water reduced by at least 30 percent;
- Quick, effective response to disasters and epidemics on a national and international basis.

Specific goals for nutrition are perhaps the most difficult to set. Ideally, one should specify targets for adequate calorie and protein availability and consumption. Improved diet will be a requirement for meeting the proposed health goals, especially for reduction of preschool mortality. However, nutrition is dependent on food supply and demand policies that are beyond the scope of this study. We therefore

223

recommend that specific food and nutrition goals and targets be set by appropriate related studies.

Integration of International Health Policy and Projects

Achievement of our health goals will require an integrated approach to international health policy and projects. The appropriate degree and nature of this integration should reflect both individual country and global health problems as well as priorities that strike a balance among those activities which most affect the health status of a country's population. This balance will require integration across developmental sectors, within the health sector, geographically within each country, and cooperatively among the various countries and agencies collaborating or providing assistance (WHO/UNICEF, February 1975).

Cross-sectoral integration including the health sector has received relatively little attention in international health (Bryant, 1969). Among the many reasons for this, three should illustrate the point. First, health activities are difficult to quantify in economic terms, and it is often simpler to merely ignore their role in economic development. Second, the role which health can play in development often eludes development planners who have no background in health. Third, the potential interrelationships between different fields such as health, agriculture, and education are often inadequately understood.

Internal health-sector integration requires an understanding of the interdependence of preventive and curative services (health), human development concerns (population and nutrition), and control of the environment (especially sanitation and water). In the developing countries, the majority of childhood deaths and disabilities relates to malnutrition and the consequent poor resistance to infections. The subject of nutrition relates to issues of child spacing, family size, and population pressure on food supplies (among other factors). Child spacing will normally not increase until death rates decrease. Nutrition assistance should not be used as an excuse for dumping surplus agricultural commodities, but should be used to promote health. It should be coordinated with efforts to stem the increase in the number of mouths to feed. Population efforts should not convey the image of an interest in population control; they should be integrated with interests for life and human development.

Geographic integration refers to integration of efforts in multiple locations and throughout the health system – for example, from rural to village to subnational to national sites and from low-skill to mid-skill to high-skill levels. Such integration can serve to distribute health resources efficiently and treat patients effectively. It allows geographically dispersed training while keeping it system-related, and it avoids isolating workers from the resources and support they may require for their efforts.

Integration of collaboration and assistance from other countries and agencies can prevent duplication or inefficiency among the many donors in the international health field. Perhaps the most powerful tool for improving the integration of assistance is compiling information about the current status of relevant programs. We think it unlikely and probably inappropriate that any one organization should be responsible for coordinating such data collection. However, we believe that some descriptive information could decrease failures to integrate donor assistance because of a lack of knowledge, and could serve to bring into the open competition between agencies or conscious disregard for the activities of one donor agency by another.

Therefore, we recommend that the U.S. Government stress integration in its international health activities and that it foster donor integration by collecting and making available descriptive information on the current status of donor activity.

Programmatic Aspects of Health Assistance

Health Planning. Traditional concerns of health planning are the allocation of resources among health services and the organization of health service delivery systems. Although support for these aspects of health planning should be part of U.S. development assistance, health planning itself has much broader implications with respect to a U.S. international health policy.

Health and socioeconomic development are closely linked. Obviously one of the most important purposes of development is satisfaction of the basic biological human needs of the population. Moreover, there is an appealing argument that a healthy, well-nourished population, growing at a reasonable rate, is a major asset in achieving social and economic development.

While the general concept of the interrelationship of health and development is clear, the details of this interrelationship are complex and poorly understood. Different development strategies, with similar impacts on per capita GNP, for example, will have very different impacts on the biological needs of individuals. Nutritional status will depend on food supply, economic capacity of the consumer, nutrition and health status, and proper choices with respect to diet. Food supply and demand depend on complex agricultural, commercial, and employment policies in developing countries. Family planning decisions are influenced not only by the availability of services, but also by a complex set of factors relating to the roles of women and children in society, religious and social beliefs, and the costs of and opportunities for alternative ways of organizing the family. Again, a vast complex of social and economic policies affect these conditions in low-income countries. Exposure to disease and disaster can also be modified according to the way a society develops infrastructure; organizes agricultural activity; devotes resources to housing, transportation, and education; and makes a number of other decisions.

Historically, development has been accompanied by serious deterioration of the human environment and by exposure of populations to new, serious health hazards. At the very least, the planning of economic development projects should include health components to ensure that such negative aspects are recognized and dealt with.

All nations would benefit from advocates for the basic biological needs of people. Such advocates can suggest that development policies be chosen which are most beneficial to health, and that investments be made to improve the health of populations. Such investments should not only satisfy human needs, but also contribute to societal development. The United States should strongly recommend the development of such a health planning capacity to assist developing countries.

Health planning assistance can take several forms. Overall health-sector assistance can be made contingent on reasonable and appropriate health planning. Perhaps a more difficult and important step would be for individual donors to coordinate with or subordinate their administrative and planning processes to host country planning where it is sufficiently comprehensive and sound. Financial and technical assistance for health planning is a high priority which requires only modest resources.

Integrated Health Systems. Health-sector assistance must meet the basic human needs of the poor whether in rural or urban areas. Integral health delivery systems must be institutionalized and investments balanced according to skills and services appropriate to host country conditions.

The basis for such systems is a widespread network of local workers and facilities that are part of the community and that can conveniently provide basic preventive and curative services. Secondary and tertiary facilities offer more complex services to relatively smaller portions of the population with medical problems that cannot be handled at the community level, and provide managerial and professional support to the local workers and facilities.

In every country, a well-balanced, integrated health delivery system would include a large variety of preventive, diagnostic, and curative health services. Highly qualified professionals, including physicians with postdoctoral training in a number of specialties, would be included, although the latter should be vastly outnumbered by allied health personnel and community health workers. The concept of integrated delivery systems should not be oversimplified nor the critical importance of the relatively few highly skilled workers and high technology aspects underestimated. In many countries, however, health delivery systems are inefficient because too many resources are concentrated in providing expensive services to an economic elite, and too few directed to completing coverage of basic low-cost services for the poor. Emphasis should be placed on developing systems that foster self-reliance and community participation in health rather than dependence on external services.

To move toward a comprehensive, integrated health service delivery system, many countries will require increased understanding of local needs, greater awareness of existing knowledge useful to these needs, increased quantities of manpower trained at all levels to address local needs, improved facilities and equipment relative to locally appropriate patterns of health service delivery, and strengthened organizational and managerial capacity to operate an integrated health service delivery system.

U.S. Government agencies should continue to improve the quality of their health assistance to developing countries by fostering conditions which reduce the barriers many countries face in establishing integrated health service delivery systems. AID should sharply increase its overall efforts to strengthen health service delivery systems (including population, nutrition, and health components). The Peace Corps should increase the number of volunteers in health programs and study ways to improve their effectiveness. The Health Services Administration, the Health Resources Administration, and other HEW agencies should assume a major role in providing technical assistance and managerial support for these programs. Other agencies, such as DOD and VA, which operate health service systems in or near developing countries, should develop procedures and mechanisms to give technical support to those countries. DOD should further emphasize health service delivery systems development in civic action programs assisting low-income countries. U.S. representatives to appropriate multilateral organizations such as WHO, PAHO, IBRD, IDB, ADB, AFDB, UNFPA, and UNICEF should encourage and support their participation in strengthening health service delivery systems in developing countries.

U.S. private-sector institutions, particularly PVOs, should also be encouraged to support this effort fully. Emphasis by the PVOs on making developing countries self-sufficient is particularly important if continuing dependency on charitable assistance is to be avoided. Therefore, PVOs should seek involvement of the government and private institutions in the host country.

Nutrition. The overall development of agricultural, commercial, industrial, and economic policies necessary to deal holistically with the problems of food and nutrition in developing countries is beyond the scope and charter of this assessment. Health programs, especially those which reduce malabsorption of food, improve appetite, or reduce fever, will also directly and strongly affect nutrition. Certain interventions, however, which bear directly and exclusively on malnutrition problems are part of a health strategy. Among the highest-priority interventions of this type are:

- Community- or neighborhood-level identification and follow-up of high-risk children using weight surveillance, nutrition education, and food supplements;
- Interventions designed specifically to reduce iron deficiency anemia and vitamin A deficiency;
- Appropriate technologies primarily for the production of weaning foods and for food fortification;
- Interventions designed to improve maternal nutrition during pregnancy and lactation and to change deleterious weaning practices, primarily delayed provision of solid food and early cessation of breast feeding.

We should direct nutrition programs primarily to those countries in which the populations are severely malnourished. Indicators such as the percentage of the population under age 5 that is severely malnourished, the average deficiency in calories, and the average protein consumption should pinpoint priority countries. We must call particular attention to calorie deficiencies in those groups of the population which are most likely to suffer from malnutrition and its adverse affects – children under age 5 and pregnant and lactating women. We must consider the nutrition of workers in terms of their contribution to socioeconomic development, especially with regard to the tremendous nutritional requirements of heavy manual labor typically required of the poor in low-income countries.

Food has been provided directly to the needy in low-income countries through the provisions of P.L. 480. Title II provides for grants of food commodities to low-income countries. These allotments usually help meet food needs while long-term measures for increasing food production are being implemented. School feeding programs under Title II are gradually being replaced by programs directed at children ages 6-36 months from poor families. This trend should be continued. Title II food-for-work programs are important tools for rural income distribution and should also be continued. The Title II program level for FY 1978 is a modest increase from previous years; from a health standpoint, the program should be further increased in the next several years.

Title I of P.L. 480 provides for concessional sales of agricultural commodities. The nutritional impact of these commodities has been discussed extensively in the past. In several countries where Title I foods are used to support subsidized consumption systems for the poor, there is a nutritional impact that is significantly beneficial.

Recently, an exhaustive analysis of priorities for world food and nutrition research (National Academy of Sciences, 1977) has been published. The recommendations of that study with respect to the biological aspects of nutrition appear generally appropriate and acceptable. They should be evaluated by the OSTP along with other affected agencies and recommendations for U.S. Government action should be prepared.

We must develop personnel and systems for nutrition interventions in developing countries. AID is currently programing some $50 million per year in this area; it appears reasonable to increase this amount sharply. Furthermore, the Peace Corps should significantly increase volunteer activity for the purpose of training personnel for community- and neighborhood-level health and nutrition programs.

Finally, we applaud and encourage the important work in nutrition of private voluntary organizations. However, PVOs should place even greater emphasis on developing the host country's own capacity to prevent malnutrition.

Family Planning. For many families, family planning services satisfy a perceived need to modify and control fertility. Especially when used in conjunction with a comprehensive family health program, they may have profound effects, greatly reducing the risk of death and disease for both mothers and children (Figure 12). Moreover, the macroeconomic effects of reduced fertility and the resultant reduced population growth rate are enormous and well known. With improvements in meeting basic human needs, one may expect increased demands for family planning services.

The population program has become increasingly important within the overall foreign assistance program, in terms of both budget and impact. This trend should continue. However, we must use care in interpreting the budgetary history of the population program. A portion of this budget has been spent on activities that could more properly be classified as health planning or development of integrated health delivery systems. A revised and improved accounting system is desirable, for only with improved information can managers estimate budget levels appropriate for family planning activity within a health assistance program.

The sensitivity of the population and family planning issue in many countries, including the United States, must also be recognized and accommodated. U.S. officials should be strictly enjoined from violating policies in any host country and from taking imprudent public positions on population and family planning matters.

Population programs for countries with the most severe population problems should receive highest priority. Factors to be taken into account include maternal and child mortality, rate of population growth, and population density. While the total funding for population activities will generally be greatest in the largest countries, per capita assistance should vary with the severity of population problems.

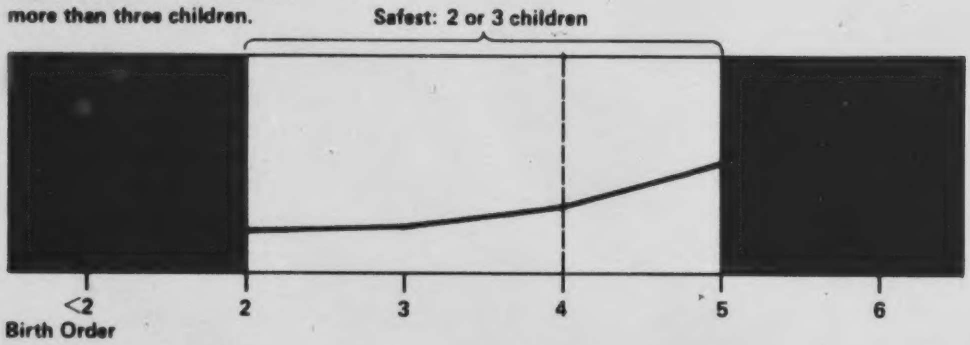
U.S. funds are occasionally used to support the direct provision of voluntary family planning services through single-purpose organizations in low-income countries. Such services are typically provided through private, nonprofit organizations. These programs should be continued only where they are likely to lead to self-sufficient programs in the host country.

Biomedical, demographic, and operations research is of continuing importance to the population program. Most of the biomedical research on human reproduction in the United States is performed for domestic purposes, but its results are of great importance for developing countries as well. AID conducts a relatively modest biomedical research program in family planning, with emphasis on topics of special applicability to low-income countries. This research should be continued. AID also supports demographic research by the Bureau of the Census, the National Center for Health Statistics, the Center for Disease Control, and various contractors. This effort should be continued, but directed more specifically toward developing more complete and detailed demographic data to permit accurate estimates of the demographic impact of various programs. Operations research should be sharply expanded.

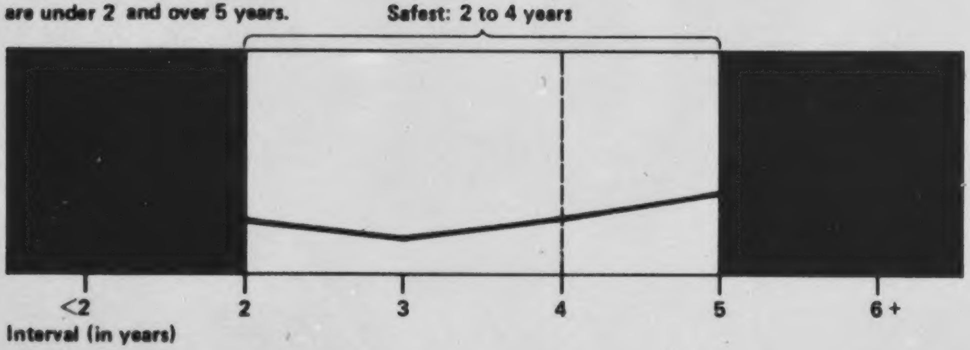
Figure 12. Safe Landmarks for Human Reproduction

Health risks for children and mothers

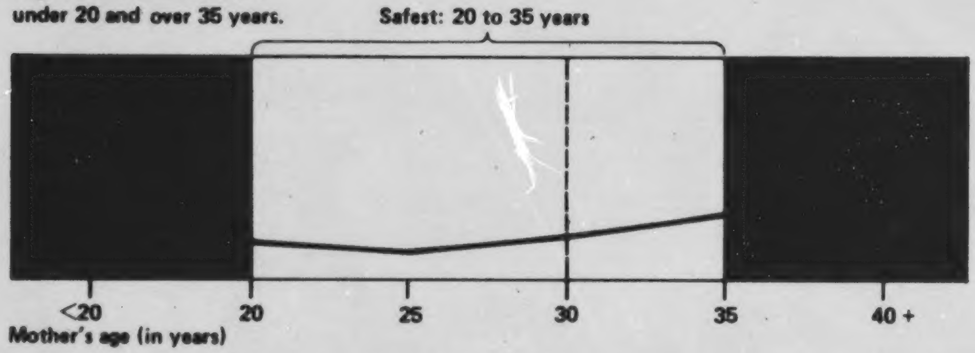
Number of children:
Higher risks for first child and
more than three children.



Pregnancy spacing:
Higher risks where children
are under 2 and over 5 years.



Pregnancy timing:
Higher risks when mothers
under 20 and over 35 years.



AID has been strongly involved in the supply of commodities for family planning services in low-income countries. This activity has had the largely beneficial effect of establishing a mass market for these commodities, allowing them to be provided at low cost. Increasing care must be taken, however, to ensure that recipient countries develop the capacity to provide the commodities needed for their populations, thereby forestalling permanent dependency on U.S. support.

The major emphasis has been on developing such capacity through public health service delivery systems, including training of personnel in family planning skills, preparation of educational materials, investment in management and organizational systems, and, to some extent, construction and equipment of facilities for the provision of family planning services. Strong emphasis on these activities should be continued by AID, UNFPA, IBRD, and others. However, vertical organization in population programs will also be important. Experience has shown that private-sector systems without foreign donor support are often as effective in distributing family planning services as public medical systems receiving foreign assistance. The initial results of AID support for expansion of private-sector activities have been very promising. Therefore, AID should move more actively to promote family planning programs in the private sector in developing countries, and U.S. representatives to multilateral agencies should advocate similar policies.

Environmental Sanitation. Potable water is so basic a human need that we often take it for granted. The very high rates of gastrointestinal and skin diseases in many developing countries are largely due to the lack of adequate water for personal use. Similarly, adequate disposal of wastes, especially human waste, contributes greatly to the reduction of many communicable diseases. Improvements in household sanitation facilities must be accompanied by health education to help foster the behavioral changes required for good hygiene. Environmental sanitation programs also include activities in solid waste disposal, food sanitation, and other areas.

The U.N. World Water Conference testified to the importance accorded by the world community to these services. A huge investment will be required in the next few decades to develop the physical infrastructure required for water and sanitation needs of developing countries. The bulk of this investment must come from the low-income countries themselves.

Primary responsibility for financial assistance to developing countries for construction of urban aqueducts and sewerage has been delegated to the IFIs, most importantly, the World Bank. Investment in public works for urban areas is of high social and economic priority. It should be handled with extreme managerial and financial responsibility and is, therefore, ideally suited for international banking procedures and skills. U.S. representatives should continue to encourage the IFIs to take a major role in this activity.

Delivery of water to rural communities, construction of latrines, and other public health environmental sanitation programs present quite a different situation. The health benefits of such programs are undeniably great. However, such programs are extremely difficult to administer in low-income countries due to the large number of geographically dispersed facilities. Probably the most serious problem in rural sanitation is administration and provision of adequate maintenance.

Financing of rural environmental sanitation in developing countries has been dependent on concessional foreign support. Because these services are so important to health, AID should increase financing for rural environmental sanitation projects; DOD should emphasize these projects in civic action programs in developing countries; and the Peace Corps should expand use of PCVs in training managerial personnel for development, maintenance, and operation of rural environmental sanitation facilities, and provide volunteers for such functions until host country nationals can be trained.

There is also a significant need for operational research activities in this area. The relative health impacts of different types of service are not clearly understood. For example, the cost of a household connection is considerably greater than the cost of a standpipe in the yard, or of one standpipe delivering water to several households. Yet there is no quantitative information on how the greater distance to the service affects health or on the effects of intervening variables such as climate. Only AID is likely to be able to develop a research program dealing with such topics; consequently, AID should finance an expanded program in this area.

Environmental service programs should generally be programed according to cost-effectiveness criteria. Designs of systems for specific localities will provide good estimates of costs. Epidemiological data on the frequency of gastrointestinal disease provide a good indication of potential effectiveness. While the threat of epidemics of typhoid and cholera in large urban areas suggests a high priority for urban systems, cost-effectiveness ratios provide a good rationale for selecting rural programs. Priority should also be given to rural sanitation programs where they can be coordinated with integrated systems for delivery of health services.

Communicable Disease Control. Historically, the greatest successes in public health have been in the control of communicable diseases. There are simple, inexpensive preventive measures aimed at controlling vectors, preventing transmission, and creating immunity for many infectious diseases. The near-eradication of smallpox, which is confidently expected to be completely eliminated in the near future, marks one of mankind's greatest achievements. The success of the international campaign against malaria cannot be denied either, although overconfidence stemming from this success is probably largely responsible for the dangerous resurgence of the disease in recent years.

We must accord priority for support of activities to control communicable disease to those regions and countries most seriously threatened. High incidence and prevalance of a disease are, of course, direct indications of high priority. Similarly, high priority exists where there is a strong potential for rapid increase of disease incidence, as when major changes in the environment create conditions appropriate to spreading disease, or where control efforts are threatened or interrupted and a relapse to previous high levels of prevalence is possible.

We also stress the importance of a good international system of epidemiological surveillance. The United States should encourage the improvement of this system. However, the United States should not accept the responsibility for communicable disease control in any low-income country. Extreme diligence must be used to ensure that foreign donor efforts are directed at creating a self-sufficient capacity in the host country for dealing with long-term communicable disease control.

Many important communicable disease control efforts can be effectively managed through integrated health delivery systems. Recent resolutions of the World Health Assembly stress the vital importance of increasing coverage of immunization services. The foreign assistance program should aid in this effort by strengthening immunization services in both existing and new integrated health delivery systems, by assisting in the development of mass immunization programs where they are appropriate, and by supporting research and development. Of particular concern is the development of a more stable vaccine for measles, since the necessity of refrigerating current vaccines causes great problems, especially in Africa where measles is a very significant cause of mortality.

The principal responsibility for financing U.S. participation in immunization programs and other tropical disease control measures will rest with AID. The Center for Disease Control should also play a major role in providing technical support for disease control activities. Private-sector agencies and the American public health community should be encouraged to participate. The Peace Corps can play an important role in providing professionally trained volunteers to train host country workers in immunization techniques and in program management, as well as in giving temporary assistance until host country nationals can be trained to staff these programs. Cooperation between AID, HEW, CDC, and the Peace Corps is strongly encouraged for development of self-sufficiency in low-income countries for the implementation of immunization programs.

WHO and UNDP have recently called for a major program of tropical disease research focusing on malaria, leishmaniasis, trypanosomiasis, filariasis (including onchocerciasis), leprosy, and schistosomiasis. U.S. participation in this program is discussed in Chapter 6. The United States should also immediately support appropriate efforts to control these diseases using available technology, and prepare to increase support for control activities as improved technology becomes available through the expanded research program.

International organizations should be encouraged to cooperate in a continuing and expanding effort to control tropical diseases. Particular attention should be paid to ensuring that infrastructure projects do not have adverse environmental effects causing increased incidence of tropical diseases, and to supporting campaigns such as those currently underway in Africa against onchocerciasis and trypanosomiasis that may have major economic developmental benefits.

Medical Disaster Relief. The AID Office of Foreign Disaster Assistance (OFDA) organizes and funds U.S. relief efforts in foreign countries after major disasters. This relief is not limited to developing countries. Much of it is in the form of emergency medical services, food, water, and shelter directed at meeting basic biological needs during acute crises. OFDA also assists in planning to avert the effects of disasters.

We should continue the foreign disaster relief program. Full use should be made of the resources of the government, including continued and expanded participation by DOD, NSF, HEW, NASA, EPA, and other agencies that have special capabilities in this area.

Besides providing disaster relief services, the program should help develop disaster prevention and disaster preparedness capabilities in developing countries. Strong emphasis should be placed on providing support in high technology areas where the United States has a comparative advantage, such as disaster surveillance and crisis management technology. Research and development should focus on identifying the physiological needs created by different types of disasters, the services appropriate to those needs, and the optimum interrelationship of disaster relief and reconstruction activities.

We should direct continued attention to coordination to ensure that the goods and services provided are relevant and useful. This is particularly important if we are to take full advantage of the valuable services of private voluntary organizations. We must provide medical supplies appropriate to the specific requirements of the disaster and packaged in the most useful way. Food, water, and shelter should be allocated in appropriate quantities. Resources must be distributed according to needs and not clustered in areas of relatively easy access.

We must also ensure that services are suitable to the cultural milieu and social organization of a country. A large influx of personnel unfamiliar with a country, armed with high technology and relatively large resources, has great potential for good, but can also be disruptive to traditional peoples and existing social structures.

Finally, disaster relief in developing countries should be integrated with the long-term program of development assistance. Major infrastructure reconstruction projects can have a long-term impact on development policy. Even immediate post-disaster relief efforts can have a salutory effect on development by setting precedents for teamwork and concern for all according to need.

Difficulties of Implementing International Health Policy and Programs

As we have seen, the international health assistance program is very complex in the number and variety of activities undertaken. The multiplicity of donor agencies, working in 50 or more low-income countries, is itself sufficient to cause serious coordination problems. Bangladesh, for example, is rumored to have more than 150 foreign governmental, multilateral, and private agencies providing health-sector assistance. Past inadequacies suggest some specific areas where constraints to effective program implementation exist.

Clarity and Explicitness of Policy. U.S. Government agencies involved in international health assistance generally have adequate understanding of the policy involved. However, in specific areas, there may be exceptions to this rule. Overall policy on tropical disease research (see Chapter 6) is one example. The World Bank is another example. At present, World Bank policy recommends involvement in nutrition and population programs and integration of health in development and integrated social service programs, but excludes direct support of health service delivery system development. U.S. representatives to IBRD should request reexamination of this policy and encourage IBRD support for all aspects of health services within a basic human needs approach to development. Similarly, the U.S. representatives in all IFIs should encourage those agencies to develop comprehensive international health assistance policies.

Agency Responsibility and Authority. The responsibility and authority of AID and the Peace Corps in health-sector assistance are clearly and appropriately defined. The assigned role of the Department of State is also clear. Domestic health agencies should accept more responsibility for technical support for international health assistance programs than they have in recent years. Particular attention should be given to increasing the authority of CDC and HSA in international health assistance.

Staffing and Personnel. There is a grave problem in staffing health assistance programs. Middle- and senior-level positions in these programs require personnel with high levels and unusual combinations of skills, including professional public health knowledge, diplomatic ability, foreign language fluency, and strong managerial skills. The latter is in especially critical supply within AID. For relatively long periods, such positions have been unfilled or staffed by only partially qualified professionals. Consequently, agencies have tended to delegate important functions to short-term consultants, many of whom produce less than optimal work because of the circumstances in which they are placed. A major effort should be made to improve personnel procedures for staffing international health assistance programs.

Table 15 shows the situation at AID. At the time of the analysis, more than 10 percent of positions were vacant and roughly two-thirds of the health staff was in the Washington headquarters. Moreover, the staff was divided into three separate program areas and three separate personnel systems. Finally, technical responsibility for health, 1 of AID's 3 major programs, was vested in less than 200 professional staff positions, or approximately 3.5 percent of the agency staff.

Information. Lack of information or institutional memory is another major problem in the development and management of international health assistance programs. This is due partly to inadequate health information systems in low-income countries. However, lack of communication of information and loss of information between different U.S. Government agencies is also a serious problem. The resultant duplication of effort in obtaining information is characterized by large numbers of relatively superficial consulting reports covering similar material. As one passes from communication of information between different agencies of the U.S. Government to that between the United States and multilateral agencies, the situation worsens. At both levels, we need more adequate sharing, storage, and retrieval of health assistance information. This study, a first in government of this scope and magnitude, was especially difficult to complete because there simply was no single point of information to rely on.

Table 15. Distribution of AID Staff and Field Personnel

Staff	Ceiling Positions	Vacancies	Other*
Washington:			
Health	33	3	5
Population	68	12	
Nutrition	13	2	
Total	114	17	5
Field:			
Health	28	6	2
Population	33		1
Nutrition	2		
Total	63	6	3

*On loan through different administrative arrangements but excluding programmatic contract personnel.

Budgets. To a large extent, international health assistance expenditures have followed political dictates rather than humanitarian concerns. We suggest that a larger portion of the total assistance budget be allotted according to technical judgments as to the priority of physiological needs and the cost-effectiveness of programs to meet those needs. Both AID and the Peace Corps appear to have directed efforts more to countries with greater absorptive capacity than to those with greater need. To reverse this process, collaborative programing should be considered for some countries to improve the utilization of human and financial resources. Such collaboration could improve the Peace Corp's ability in health project design and evaluation and AID's ability to accurately identify rural health needs and monitor on-going projects. These internal improvements in U.S. foreign assistance delivery would in turn improve the absorptive capacity of the host country through institutional and programmatic changes in its health systems.

U.N. Policy and International Health. U.S. policy for support of U.N. agencies should be reevaluated. Currently, the U.S. policy is to fund 25 percent of the budgets of these organizations and to oppose rapid budget increases. A more informed approach would be to fund an average of 25 percent of all expenditures and support better programs more fully, thus allowing them to grow more rapidly. Under WHO's present policy, 60 percent of its budget is directed to the needs of developing countries. U.S. representatives should continue to support this policy as well as the practice of separating developmental health assistance budgets from "regular" budgets in deciding on priorities.

As part of its charter, WHO is responsible for and has been providing assistance to member states. Nonetheless, specific identification and review of WHO, UNICEF, FAO, and UNDP health assistance activities in light of U.S. assistance plans should be beneficial. At a minimum, a crosscut analysis of U.N. health-related costs would elicit valuable budget planning information for both the United Nations and the United States.

Budgetary categories within the health-sector assistance program should be revised, and expenditures should be accounted for by actual function (for example, improving integrated health service delivery) rather than purpose (health, nutrition, or population).

Certain funds allocated to international health tend to have a strong multiplier effect. Funds channelled through multilateral agencies are generally combined with larger amounts from other donor countries. Insofar as the United States influences these funds by its vote or prestige and agrees with the orientation of the agency, such funding channels are to be preferred.

Managerial Capacity. The problems in staffing, information, and other areas mentioned above obviously interfere to some extent with the managerial capacity of international health assistance agencies. It is also the case that managerial systems are sometimes inadequate. The long lead times and extensive documentation required to develop a project are of particular concern. We need to streamline and improve management capability in order to improve the effectiveness and efficiency of international health policy and program implementation. A first step would be the development of a personnel policy which integrated policy and administrative personnel with the medical and public health technicians now in overabundance in the Federal Government and international institutions.*

The management of health assistance programs should ensure maximum impact per dollar spent. We have already recommended that accounting reflect actual function rather than the purported purpose of obligations and expenditures. The time delay and complexity involved in measuring the impact of health programs all but exclude the possibility of impact evaluation. Consequently, management of health-sector programs must now rely principally on evaluation of service delivery and quality. Further operational research should be undertaken to improve impact evaluation.

---

*At present, for example, there is not one professional public administrator heading any international health program in the Federal Government.

237

Finally, technical management of the health program will be improved by consolidating currently separate functional bureaucracies for health, nutrition, population, environmental sanitation, communicable disease control, and disaster relief.

The Need for Public Support. Although support for health assistance programs has been growing rapidly over the last decade, constituencies for these programs in the United States have not made their influence felt fully. Therefore, we call for more complete understanding of the issues and the importance of international health activities on the part of the public and many specific groups. The private sector and the Executive Branch should enlist public support for improved international health assistance programs.

Some Suggestions for International Health Through Development Assistance Channels

In this chapter, we have seen how international health, development, and U.S. foreign assistance are interrelated and the importance of understanding this relationship. It is evident that principles and goals in health assistance and actual health assistance programs are not always congruent, and that much remains to be done to improve U.S. participation in such activities. The following paragraphs suggest a few initiatives for meeting basic human health needs through foreign assistance channels.

Coordination of Health-Sector Activities. For the last decade or more there has been a growing international consensus that overall coordination of health-sector activities should be based on implementation of coordinated host country policies and plans. However, experience has shown that host countries do not always possess the technical and political ability to develop and implement such plans, and that donor agencies often demand special treatment from host countries.

In view of these negative experiences, the United States should call for a coordinated policy for health-sector development from the international community. We recommend a 10-year program for the 1980s involving increased support for health from donor nations and multilateral agencies and increased dedication to basic human health needs by low-income countries.

Research and Training Centers. The United States should initiate the creation of foreign-based research and training centers to increase the capacity of local governments to meet their own health needs. We should coordinate the establishment of such centers through the forum of appropriate multilateral organizations to which we belong, and seek the participation of these organizations in preparing for that establishment.

In the field of health planning, the centers would undertake research and development of planning methods and processes and work to clarify and quantify interrelationships between health and development. They would train planners for such analysis and decision making and provide technical assistance for organizing and managing national planning for biological human needs.

In the area of integrated health delivery systems, these centers would provide consultation and technical assistance to low-income countries; serve as information repositories and sources; conduct operational research on health service delivery; and train personnel for the planning, evaluation, and management of health service systems.

Health Industries. Provision of goods and supplies for medical services within delivery systems deserves particular attention. Although the U.S. pharmaceutical and medical supply industries have received considerable criticism in recent years, they have been enormously successful in developing appropriate products and making them available to low-income countries. A number of studies have indicated the high value placed on simple pharmaceuticals by poor people in these countries. The strength of this industry should be built upon. As discussed in Chapter 5, studies should be conducted to determine how best to provide health industries with incentives for investing in countries where health goods and services are needed and eliminate deterrents to such investment. The importance of wise use of this health resource for the improvement of health conditions internationally should not be underestimated.

Technical Assistance. Finally, we recommend that technical assistance in health be made better by:

- Improving the coordination between U.S. and U.N. efforts in international health;
- Increasing and upgrading AID and Peace Corps professional staff involved in developing, managing, and evaluating health and health-related programs;
- Mobilizing the technical capacity of the U.S. Public Health Service to provide assistance to developing countries through the foreign assistance program beginning with inclusion of HEW in the Development Coordinating Committee; also specifying HEW responsibility in this area through legislation;
- Encouraging developing countries and U.S.-based multinational firms in health-related industries to facilitate the transfer of commercial health technology;
- Including health technology in the charter of the Appropriate Technology Institute;
- Enhancing the role of research and development in U.S. health assistance to developing countries.
- Strengthening and streamlining the Federal statutes which authorize efforts in international health;
- Recruiting professional managers skilled in the most up-to-date techniques of management systems, policy planning, and administration.

Chapter 8

Health Manpower For International Health Programs

Health manpower is a common denominator of all international health activity. Today, health manpower problems are viewed as a major obstacle to the development of health services throughout the world (World Health Organization, 1976). Whatever the physical structure of the health system, patterns of health service delivery reflect the beliefs and practices of the health manpower employed in the system. Proper training and use of health manpower therefore can be the most effective way of achieving health systems goals.

The international health manpower pool includes all foreign nationals working in foreign health systems and any person engaged in health-related activity which involves more than one country. It is also composed of U.S. nationals and foreign nationals working in the United States or abroad, either in government or the private sector. These individuals may be health care providers, biomedical and systems researchers, educators, trainers, public health workers, planners, administrators, analysts, and technicians. They are involved in preventive and curative activities, human development concerns (population and nutrition), and control of the environment (for example, vector control, sanitation, and water).

International health manpower training consists of any activity to develop or maintain the competency of such individuals for international health-related service. Training activities include degree or certificate programs that provide basic, advanced, or specialized knowledge or skills, on-the-job training programs, training exchange programs, and continuing education.

The major role which the United States plays in international health manpower stems from our knowledge and skills in the biomedical sciences, health professions education, health management, and administration. Our international health manpower policy should build on this resource and on the American genius for voluntary action and pluralistic solutions to problems. However, these strengths demand cooperation among all sources of health manpower activity in the United States, including government agencies, academic institutions, and the private sector. In addition, a realistic, effective approach to the resolution of health manpower problems calls for wise and careful planning at the highest level of government to ensure productive relationships among the United States, other governments, and international agencies.

In this chapter, we shall examine U.S. Government use and training of international health manpower, the role of U.S. health professions schools, the problem of health manpower migration, and international health manpower needs. A final section is devoted to recommendations for a comprehensive U.S. international health manpower policy.

U.S. Government Use and Training of International Health Manpower

At present, the U.S. Government employs over 2,000 full-time equivalent personnel in its major agencies concerned with international health activities. It also trains over 2,200 foreign health professionals representing over 75 projects in at least 37 foreign countries. It annually assigns at least 100 expert consultants in international health. The principal U.S. Government agencies involved in international health activities are the Peace Corps; the Agency for International Development; the Department of Health, Education, and Welfare; and the Department of Defense.

The Peace Corps. The Peace Corps constitutes one of the largest manpower pools available for international health activities. Currently, over 1,700 Peace Corps health volunteers are active in over 43 countries in Africa, Latin America, and Asia. Table 16 shows the distribution of these volunteers by job and skill categories.

With appropriate training and supervision, Peace Corps volunteers who do not possess a background in one of the health professions can be employed in health programs. Many of these volunteers, as a result of their Peace Corps experience, elect to continue in health careers, thereby enlarging the health manpower pool in the United States.

Table 16. Concentration of Peace Corps Trainees' Skills in Health Jobs, 1970-75 (by Percent)

	Skill Category					
Job Category	Nurses	Other Health Professionals	General Bachelor Degrees	Bio-scientific Personnel	Other	Total
Health Services	30	24	23	13	10	100
Health Training	60	23	7	3	7	100
Child Health	6	26	52	6	11	100
Nutrition	1	22	64	2	11	100
Disease Control	4	5	34	42	15	100
Sanitation	0	8	66	14	12	100
All Health	24	19	31	15	11	100
Total Number	411	321	544	256	187	
(Fill Rate)*	(84)	(55)	(85)	(87)	(Not Available)	

*The Fill Rate is the percentage of country requests for personnel with a certain skill that is actually met.
Source: PCV Master File.

241

U.S. Agency for International Development. The U.S. Agency for International Development employs 216 professional staff in health, population, and nutrition. In 1968 AID classified 510 of its employees as health workers. As of June 1976, this number had fallen to 129. Almost 80 percent of all AID personnel were in program management, administration, accounting and budgeting, and contract procurement and financial analysis; only 3 percent were in health and medicine.

A recent draft report on AID organization noted that AID has no training strategy and that training is not linked to career development. This draft report also noted that many of the new skill requirements are technical and recommended that, without exception, every management position in AID should be reserved for rotational assignment.

AID has been much more active in training foreign nationals. It spends over $14 million annually to train more than 1,000 health professionals from developing countries. Most of this training takes place in the United States. Within developing countries, AID prepares large numbers of people for work in local health delivery programs. In 1977, there were 75 such training projects in 37 countries, 5 of which were regionally based (4 in Africa and 1 in Latin America). The current emphasis in these projects is the development of mid-level health manpower to meet the needs of rural health delivery systems.

Finally, AID employs expert consultants for its headquarters and field projects. AID provides funds to the American Public Health Association (APHA) to identify and contractually employ consultants for these projects. Under this arrangement, APHA maintains a roster of over 1,000 expert consultants according to their respective skills, aptitudes, and experience. So far, about 300 consultants have served on projects in over 50 developing countries. About $200,000 in direct consultant costs were incurred in 1976.

Department of Health, Education, and Welfare. The Department of Health, Education, and Welfare employs about 321 full-time employees and 280 full-time equivalent employees in international health activities. The most active branches for such activity in HEW are the Center for Disease Control, the National Institutes of Health, and the Office of International Health.

CDC employs the equivalent of 150 full-time persons working in international health. It has provided technical direction and personnel for disease eradication programs, most notably the worldwide smallpox eradication program and the measles and smallpox eradication program in West Africa, both stellar successes in international health. Each year, CDC also provides training at its own facilities in specific areas of its expertise for about 600 students from 90 countries, and it presents courses and workshops in host countries under the sponsorship of PAHO and WHO.

NIH has been concerned primarily with the exchange of scholars in biomedical research activities. One notable success has been the U.S.-Soviet Science Exchange Program. In recent years, however, HEW has de-emphasized international health in its research training programs. NIH no longer provides international health training grants, and there is only minimal involvement of researchers from many parts of the developing world.

Between 1957 and 1969, NIH made 91 awards totaling $3,306,000 to foreign institutions to support U.S. nationals in international health training activity. The National Center for Health Services Research of HRA funded $2 million in 1975 for 47 previously initiated traineeships and fellowships in health services research, but is not currently permitted to fund any new starts in this research field. In general, the involvement of technical professionals in U.S. Government international health activities has decreased since 1968.

The John E. Fogarty International Center of NIH operates four major programs for foreign health scientists (see Table 17). Since 1958, almost 1,600 fellowships have been awarded in the Visiting Fellows Program: 877 from Europe, 280 from Latin America, 320 from Southeast Asia and the Far East, 40 from South Africa, 1 from Nigeria, 73 from Israel, and 2 from Lebanon. The Fogarty Center also processes applications (478 in 1975) for U.S. training of international health professionals (from 77 countries in 1975). Some of these health professionals receive financial support from WHO, U.N. agencies, the U.S. Department of State Cultural Exchange Program, and private foundations and voluntary agencies such as the China Medical Board and the Institute of International Education; others are self-financed, sponsored by their governments, or referred by other Federal agencies.

Table 17. Programs of John E. Fogarty International Center for Advanced Study in the Health Sciences

Year	Program	Amount	Scientists
1975	Scholars-in-Residence	$ 210,867	14 Foreign
1976	Research Exchange	717,114	42 Americans
1976	Research Exchange	1,610,000	139 Foreign
1976	Visiting Fellows	6,778,288	625 (48 countries)

Source: Fogarty International Center, John E. 1976. NIH Annual Report of International Activities, Fiscal Year 1975. Washington, D.C.: U.S. Government Printing Office.

The Office of International Health in the Office of the Surgeon General identifies U.S. health manpower for short- and long-term assignments with international organizations (about 275 from government and 100 from outside government per year), with AID (about 3 to 4 persons per week), and with other nongovernmental organizations such as the World Bank (about 2 persons per month).

The National Research Act. In 1974, Congress passed the National Research Act (P.L. 93-348). The Act directed the Secretary of Health, Education, and Welfare to "arrange for the conduct of a continuing study to establish (1) the Nation's overall need for biomedical and behavioral research personnel, (2) the subect areas . . . and the number of such personnel needed in each such area, and (3) the kinds and extent of training which should be provided such personnel." The Act went on to direct that the study: assess current training programs for these personnel in NIH and ADAMHA, and other training programs for such personnel; identify the research positions available to and held by persons completing these programs; determine whether programs other than those in NIH and ADAMHA could meet estimated needs; and determine what modifications should be made in all programs to meet the Nation's overall needs.

NAS was commissioned to undertake this continuing study. Its findings indicate that the U.S. supply of biomedical and behavioral scientists is sufficient to satisfy the U.S. market for their services (which includes jobs in international health although these are not specifically identified in the study). The study results also imply a need for a small increase (10 percent) in clinical science postdoctoral training and for reestablishment of HEW's former role in training health services researchers.

The Department of Defense. The Department of Defense administers overseas medical laboratories in eight countries throughout the world. These laboratories make a valuable contribution to the training of local health manpower. In FY 1977, DOD overseas laboratories employed some 900 foreign nationals.

Section 54 of the International Security Assistance and Arms Control Act of 1976 (P.L. 94-329) provides for international military education and training of foreign nationals by DOD. In FY 1977, the United States provided education and training to 5,000 foreign nationals from 45 countries at a cost of $30 million. Out of these 5,000 trainees, however, only 146 from 22 countries received training in health (see Table 18). Most of this training was provided to military personnel from developing countries. It covered a wide range of subjects from basic environmental health to biomedical x-ray equipment maintenance.

Since the capacity of the U.S. military to train health personnel is well established, the cost of expanding health training programs for foreign nationals is small. The Army estimates that the tropical medicine course offered each year at the Walter Reed Army Institute of Research could accommodate several foreign nationals from developing countries at virtually no additional cost. This can be accomplished under existing legislative authorities. Redirection and expansion of our security assistance programs to emphasize health care training has the potential for becoming one of our nation's most valuable and longest remembered types of military assistance.

Table 18. Number of Foreign Nationals in Health by DOD, FY 1977

Country	Army	Navy	Air Force
Thailand	1	1	
Indonesia	5	1	
Taiwan	1		
Malaysia	1		
Egypt	1		
Jordan	4		
Saudi Arabia	34	5	
Iran	4	2	2
Pakistan	1	1	
Greece	1		
France		1	
West Germany		2	
Netherlands		1	
Denmark		1	
Liberia	2		
Nigeria	55		
Ethiopia	2		3
Ghana	1		
Uruguay	6		
Venezuela	1		1
Australia	1		
Canada	2	2	
Totals	123	17	6

U.S. Schools and International Health Manpower

The development of international health manpower training has been primarily an American and British enterprise. For many years the famous London School of Hygiene has trained international health workers, particularly those engaged in public health activities in the tropics. However, from the beginning of this century the Rockefeller Foundation has had a profound impact upon the training of international health workers. These workers have been trained primarily in U.S. schools of public health, beginning with Johns Hopkins University and Harvard University. From a very early period the tropical medicine program at Tulane University also constituted a major focus for the training of international health manpower, particularly in biomedical research skills and epidemiologic field research.

More recently, the University of Hawaii has developed an innovative approach for rapidly training mid-level and community-level workers, the key health manpower bottleneck in developing countries.

Following World War II many foreign nationals were trained at U.S. health professions schools to administer and staff the various ministries of health around the world. In virtually every country of the world there are graduates and trainees of U.S. health professions schools. The same is true of the international health agencies such as WHO and PAHO.

Today, although there is great interest in the United States and abroad in involving U.S. health professions schools in international health activities, there is no systematic effort to assess the international involvements of such schools. During the 1960s, government agencies and private foundations were more willing than they are now to fund international health manpower activity in U.S. schools, including the compilation of statistics on such involvement. But interest declined in the early 1970s, and no recent information exists other than that which is anecdotal or informal.

The most recent statistics on the international activities of U.S. medical schools come from a survey published in 1969 by the Division of International Medical Education of the Association of American Medical Colleges. Fifty-one of the 88 medical schools in the United States at the time were questioned about their international health activities. Of those questioned, 37 U.S. schools reported activities in 59 countries: 31 schools in 26 Latin American countries, 9 schools in 10 African countries, 18 schools in 17 countries in South and East Asia, and 6 schools in 6 Middle East countries.

This study was one of the activities conducted under funding from AID, the Commonwealth Foundation, the Rockefeller Foundation, and the Kellogg Foundation. Funding of this specific study started around 1960 and, as time passed, the funding became more and more project-oriented. AAMC decided it could not maintain the Division of International Medical Education under these conditions and the Division was discontinued in 1976.

In June 1977, members of the Federation of American Schools of the Health Professions convened to assess their involvement in international health manpower activities. At this meeting, the American Association of Dental Schools reported that U.S. dental schools have formal and informal agreements with schools in at least 23 countries. The Association of University Programs in Health Administration said it had contacts from 28 countries interested in program development in health administration. It also reported on health management training centers in 10 countries (2 of which are in developing countries) and a PAHO-Kellogg Foundation program in Latin America to improve and modernize health administration education and practice. The American Association of Medical Colleges noted that at least 40 medical schools in the United States had agreements with medical schools in other countries. The American Association of Colleges of Pharmacy related results of an informal letter survey: 1,331 foreign students from 70 countries were enrolled in professional and graduate programs in pharmacy, 33 U.S. colleges of pharmacy reported foreign visitors in the last 24 months, 17 reported visiting foreign professors, 29 reported that members of their faculty had lectured and consulted at foreign universities, and at least 12 reported formal exchange or development programs with foreign universities in 27 countries. The American Association of Colleges of Podiatric Medicine observed that about 1.5 percent of its members' total enrollment in 1976-1977 were foreign students. Finally, the Association of Schools of Public Health confirmed that 15 percent of the students enrolled in its member schools were foreign students and that 15 of the 19 accredited U.S. schools of public health offer international health in specific courses or as a major area of study or course track.

The major source of funds for international activities of U.S. health professions schools is the Agency for International Development. Between 1962 and 1975, AID spent $25,635,195 at 18 universities for studies in health, population, and nutrition. Of this amount, over $21 million went to four universities. In FY 1975, $8,267,000 was spent on university contracts and grants in the categories of population and health. A recent study reported that services procured were not always directly related to AID's immediate programing needs and that special awards to improve university response capabilities were not always in priority areas (Comptroller General, May 1976).

The U.S. academic community undoubtedly offers a great reservoir of expertise and interest in various aspects of international health. Unfortunately, there is no single direct entry point at which U.S. schools can introduce initiatives for developmental or diplomatic involvements in international health.

Health Manpower Migration and U.S. Supply

In the past 30 years, increasingly large numbers of health professionals have left their home countries to work elsewhere. A 1971 WHO study showed that at least 140,000 physicians were practicing outside their home countries (Bland, July 1976). Based on U.S. experience since 1970, this number could easily be above 200,000 in 1977. This represents a significant loss in service, investment, and leadership in those countries with the lowest ratios of professionals to population.

The United States has benefited by receiving many of these professionals. Between 1965 and 1975, 45,765 immigrant physicians came to practice in the U.S. health system. In 1974, there were almost 83,000 foreign-trained physicians practicing in the United States – almost 22 percent of our total supply. Between 1965 and 1973, over 61 percent of foreign medical graduates entering the United States came from countries outside North and Central America and Europe (see Table 19).

The total number of foreign nurse graduates in the United States is unknown, but since 1969 about 8,000 persons designated as nurses have entered the United States each year (about two-thirds as permanent residents and one-third as temporary residents). California has the greatest proportion (21.7 percent) of foreign nurse graduates licensed by examination, followed by Texas (18.2 percent), New Jersey (13.8 percent), and Illinois (12.3 percent) (Health Resources Administration, March

1976). Table 20 summarizes figures from the Immigration and Naturalization Service, U.S. Department of Justice, for 24 categories of health manpower (immigrant and nonimmigrant) admitted to the United States between 1973 and 1975.

Table 19. New Entries of Immigrant and Nonimmigrant Physicians Into the United States, by Continents, 1965-73 [1]

Fiscal Year	North and Central America	South America	Europe	Asia	Africa	All Other Areas
1965	1,282	528	1,567	2,376	[2]	261
1966	1,206	538	1,637	2,980	[2]	267
1967	1,147	562	2,211	3,838	207	150
1968	1,228	706	2,002	4,157	219	93
1969	959	526	1,722	3,331	273	128
1970	1,031	599	1,922	3,571	365	142
1971	1,221	821	1,359	4,106	303	69
1972	920	737	1,367	3,630	274	96
1973	1,193	946	1,598	3,754	471	161
Total	10,187	5,963	15,385	31,743	2,112	1,367

[1] Immigrants are counted according to country of birth, nonimmigrants according to country of last permanent residence.

[2] African entrants for 1965 and 1966 are included under "All Other Areas."

Source: Stevens, Rosemary et al. October 11, 1975. Physician migration re-examined. Science, Vol. 190, pp. 439-442. Washington, D.C.: American Association for the Advancement of Science.

Thus, although the U.S. supply of health manpower appears to be sufficient to meet our domestic and international health manpower requirements, we have, in effect, been the recipient of international health assistance in the form of health manpower immigrants. These immigrants have made a substantial contribution to our health manpower pool and have saved American taxpayers a significant amount of money. A study conducted by the Institute of Medicine estimates U.S. medical schools spent at least $12,000 per year (1972 dollars) per student. Therefore, the more than 31,000 physicians who immigrated to the United States from 1973 to 1975 represent a savings of some $1.5 billion to this country. This sum is considerably more than the funds allocated for health in the U.S. foreign assistance budget for the same period of time.

Another recent study, which analyzed the medical brain drain in Latin America, concluded that "the medical brain drain is not as momentous a factor as other impediments to health progress in Latin America. . . . For Latin America, physician migration has little direct impact in denial of health services, but does represent a considerable loss in educational investment." The author of this study estimated that 2,899 Latin American physicians in hospital training programs in the United States in 1974 alone represented nearly $145 million in training costs saved for the United States (Horn, 1977, pp. 425-442).

Table 20. Health Manpower Admitted to the United States, 1973–75

Manpower Category	Year Admitted		
	1973	1974	1975
Physicians, medical and osteopathic	12,288	10,054	8,827
Pharmacists	1,365	1,067	1,104
Dentists	457	497	588
Optometrists	67	56	50
Veterinarians	184	816	200
Podiatrists	–	15	53
Dieticians	348	363	324
Chiropractors	11	17	56
Registered nurses	9,468	7,823	8,460
Practical nurses	144	204	156
Nurses aides, orderlies, and attendants	714	632	674
Lay midwives	95	111	78
Health aides (except nursing)	–	72	111
Health trainees	–	68	51
Child care workers (not household)	–	54	97
Clinical laboratory technicians	–	778	804
Radiologic technicians	–	138	139
Dental hygienists	–	71	64
Health record technicians	–	74	27
Health administrators	–	110	82
Dental laboratory technicians	–	51	70
Optician, lens technicians	50	47	56
Therapists and healers	217	214	191
Therapy assistants	–	29	20

Source: Tables 8A and 16B, Immigration & Naturalization Service.

Most health manpower immigrants have come to the United States since 1965, probably because of the establishment of preference categories in the 1965 immigration laws (P.L. 89-236) which favored their entry. In 1976, based on numerous analyses of the situation, Congress passed the Health Professions Educational Assistance Act (P.L. 94-484). The Act declared that "there is no longer an insufficient number of physicians and surgeons in the United States such that there is no further need for affording preference to physicians and surgeons in admission to the United

---

*In 1975, there were 378,000 physicians in the United States, or 1 per 564 people. As the recent doubling of medical school capacity begins to have its effect, the U.S. physician supply will grow. The Bureau of Health Manpower estimates there will be 519,000 physicians in the United States in 1985, or 1 physician per 451 people. The estimates for 1990 are 594,000 physicians, or 1 per 412 people. Furthermore, under the service payback provisions of the Public Health Service Health Professions Scholarship Program, as many as 13,000 physicians could be available in 1987 for assignment to designated shortage areas in the United States. If these 13,000 were assigned properly, every county would have more than 1 primary care physician per 1864 people.

States. . . ."* The Act requires foreign medical graduates to pass technical and language examinations and to demonstrate their ability to adapt to the U.S. educational and cultural environment. It also requires them to make a commitment to return to their country of origin upon completion of their education in the United States.

Changes have also been made in the Immigration and Nationality Act regarding the eligibility of alien physicians to immigrate to the United States or to change status while in the United States. Similar examinations and requirements for foreign nurse graduates are now being prepared by the Commission on Graduates of Foreign Nursing Schools, which was founded in April 1977, and is supported in part by the American Nurses Association and the National League for Nursing.

In addition to limiting the overall influx of foreign medical graduates, the new law will affect U.S. hospitals, where foreign medical graduates comprise as much as 66 percent of the house staff in some hospitals. Special educational exchange programs to train foreign physicians specifically for service in their home countries will also be affected. Hundreds of cases arose between October 1976 and August 1977 in which outstanding scientists experienced difficulty in coming to the United States for exchange training, research, or teaching. They had not recently reviewed the basic science information needed to pass Part I of the required examination of the National Board of Examiners. Amendments (P.L. 95-83) passed August 1, 1977, are intended to overcome some of the obstacles for senior scientists in such exchange programs.

In addition to legislation, the fluctuating supply of U.S. medical graduates will alter U.S. demands for foreign-trained physicians. As the number of U.S. medical graduates reaches an expected 16,000 or more annually by 1980, the currently stable number of graduate medical education positions will be filled primarily by U.S. medical graduates. This will decrease the supply of training positions available for foreign-trained physicians. The Bureau of Health Manpower (HEW) estimates that all these changes will decrease the number of foreign-trained physicians entering this country to about 20 or 25 percent of what it is now.

International Health Manpower: Supply and Distribution

The supply and distribution of all types of health manpower differ significantly in the developing and the developed world. Moreover, it appears likely that current health manpower population ratios in the developed countries cannot be realized in developing countries between now and the end of the century. This is due, in part, to the scarcity in developing countries of persons with primary and secondary education, the duration of professional studies, high costs of training, brain drain, and insufficient budgets to pay health manpower salaries.

Table 21 shows 1972 population ratios for medical and dental personnel in the six WHO regions. Most developing countries have less than 1 physician per 1000 people. In fact, the majority of developing nations have less than 1 physician per 10,000 people (43 of 79 developing nations), (World Bank, March 1975, Annex 6), and 10 countries have less than 1 physician per 50,000 people (8 countries in

Africa). In most countries, 50 to 75 percent or more of the physicians are located in the capitals and large cities, while 75 percent of the population live in areas outside these cities (World Bank, March 1975, Annex 9).

Table 21. Medical and Dental Manpower in WHO Regions, 1972

Region	Population	No. of physicians	No. of dentists	Population per physician	Population per dentist
African	247,341,000	25,437	2,566	9,723	96,391
American	521,464,000	575,914	180,288	905	2,892
Eastern Mediterranean	234,331,000	70,129	8,948	3,341	26,188
European	780,455,000	1,392,642	264,667	560	2,948
South East Asia	898,712,000	150,603	10,400	5,635	81,606
Western Pacific	246,141,000	184,453	54,296	1,334	4,533

Source: World Health Organization. 1976. 1976 World Health Statistics Annual. Vol. III. Geneva: WHO.

Support or auxiliary health personnel are even more varied in their supply, ranging from ratios 0.1 to 27.8 per physician. In a recent survey of 180 health projects in developing countries (American Public Health Association, January 1977), the majority of respondents identified shortages of health workers other than physicians as the factor most impeding project success.

Initial attempts to rectify the imbalance between the location of health care facilities and the location of those who need such facilities involved major efforts to increase the number of physicians and nurses. Despite these efforts, it has become evident that most highly trained health providers are unwilling to devote themselves to careers in rural areas. This is due, in part, to the absence in many rural areas of the institutional and organizational bases required for their practice.

Country health system development officials are beginning to recognize that imported health manpower systems usually do not solve the fundamental health system problems of their countries (World Health Organization, 1976, p. 32). Rather, different types of health delivery systems will have to be tailored to country and regional needs and stages of development (WHO/UNICEF, February 1975, p.46).

The most critical need of most of the developing world's rural population is simple primary and preventive health care, environmental sanitation, and proper nutrition. Health authorities agree that less-skilled personnel (such as community and mid-level health workers) can treat most illnesses in developing countries.

Realistic and affordable health care could be delivered to most of the developing world's population through a three-tiered system involving community health workers, mid-level health workers and health professionals staffing rural health centers and hospitals, and highly skilled specialists staffing state or national hospitals in urban or provincial centers.

Primary health services delivered by community health providers "chosen by the people from among themselves and controlled by them, . . . [as opposed to] a reluctant, alienated, frustrated group of bureaucrats parachuted into the community" (WHO/UNICEF, February 1975, p. 46) would occupy the broad base of such a delivery system. "The entire health service system will need to be mobilized to strengthen and support these primary health workers by providing them with training, supervision, referral facilities and logistic support, including a simplified national health technology appropriate to their needs" (WHO/UNICEF, February 1975, p. 46).

Mid-level health workers based at rural health centers would be responsible for training community health providers and would support and consult with community-level workers about daily activities in the village. The mid-level workers would also be skilled in basic epidemiologic reporting, pooling of data for submission at national levels, and management. Mid-level personnel should have primary care experience in rural areas or should receive at least part of their training in or near their home country rural setting.

Highly skilled health care providers, such as physicians, nurses, sanitary engineers, and dentists, would be involved in secondary health care services and overall planning, management, and evaluation of the health care delivery system. They will be required to "move with firm logic from health needs to careful choices on the use of resources" (Bryant, 1969). They will need to see health in broad terms, participate in setting community goals, treat both individuals and populations, and work with all sectors of government.

The development of planning, management, and evaluation skills should be strongly encouraged for highly skilled health care providers. A shortage of personnel in these areas is evident. Field experiences in rural areas should be encouraged to develop an understanding of the problems related to delivery of community health care. Finally, these highly skilled health professionals should become thoroughly familiar with traditional medicine as practiced in their country in order to integrate these activities into the overall health care delivery system where it is appropriate and feasible.

Indigenous health providers should be thought of as a potential resource rather than an obstacle to health care delivery in developing countries. Traditional medicine (including medicinal preparations) plays a major role in the lives of most rural populations in the developing world. Efforts to coordinate the activities of indigenous practitioners with modern health practices should be encouraged wherever possible. Participation of indigenous health providers in the health care system can be supported by retaining their effective health care practices where appropriate and incorporating their effective traditional medicines into the "modern" pharmacopoeia.*

The creation of a system such as the one outlined above to deliver needed health care requires a fundamental change in the thinking of health planners and other government officials. The current status of health planning in most nations of the world was characterized in a recent joint study by WHO and UNICEF:

> Overall health goals and policies are missing. . . . In addition, the situation is often complicated by faulty utilization of the resources available. . . . Information and effective machinery for national health planning are often lacking. Many health administrations do not have competent planners, especially at regional level (WHO/UNICEF, February 1975; pp. 10, 13, 14).

Close working relationships do not usually exist between the health system, the education system, and the overall government policy development system (Callaher, J., 1976, p. 70). In many countries, health manpower planning mechanisms do not exist to link these three systems in pursuit of improved national health status.

During the last decade or so, health manpower education and training were thought to be valuable in and of themselves. In general, separate and independent programs existed to train highly skilled, mid-level, and community health workers. Further separation occurred within these levels between health care providers and system operators. Most countries produced health manpower who did not directly relate to their most pressing social needs (WHO/UNICEF, February 1975, p. 12). Naturally, health graduates practiced the way they were trained instead of performing activities related to national needs (WHO/UNICEF, February 1975, p. 11). Many countries still have no programs to train and employ auxiliaries and community health workers (Office of International Health, May 1975, p. 24; and Office of International Health, June 1976, p. 109).

While these trends were developing, the quantity of health manpower was increasing and significant progress was being made in health services planning. But, "no such gains were made in manpower planning, the most important element in this process" (Horowitz, 1974).

Fortunately, governments and universities are now insisting that manpower resources carry out their duties in accord with their societies' needs (Horowitz, 1974, p. 16), and training programs for such personnel are beginning to reorient their objectives.

---

*In the Provisional Summary Record of the 16th, 17th, and 18th Meetings, 30th World Health Assembly, May 1977, Dr. Goel of India reported that about 80 percent of the rural population of Southeast Asia and China were served by traditional healers.

A U.S. Policy on International Health Manpower

As we have shown, the United States currently participates in a multitude of international health activities on many levels. Precisely because our international health manpower efforts come from a variety of sources – government agencies, nongovernment agencies and institutions, and the private sector – guidelines are needed to make the U.S. role consistent and relevant. The U.S. Government should have an explicit, evolving policy on international health manpower which communicates the commitment of the United States *as a country*. Such a policy would foster cooperation among all participants to realize shared goals which are clearly understood and accepted. It would not compromise anyone's unique potential for contribution. This policy would also guide the international health manpower activities of the U.S. Government and its collaborative efforts with others, especially with the World Health Organization.

International health manpower involves activities and resources both within and outside this country. Therefore, any attempt to formulate U.S. policy must begin by specifically defining both our international and domestic objectives. **On the international level, our objectives should be:**

- To elevate the health status and well-being of other peoples of the world;
- To improve harmony among nations;
- To strengthen the ability of other countries to meet their own health manpower requirements;
- To help expand the supply of international health manpower to solve international health problems;
- To support collaborative multinational efforts which seek more efficient use of global resources.

On the domestic level, our objectives should be:

- To increase the willingness and ability of U.S. health workers to practice primary care and prevention, and to expand their interest and skills to work in health manpower shortage areas within the United States;
- To provide experience and information that can help in devising better solutions to U.S. health manpower problems, using not only physicians but policy planning and management personnel who have the necessary skills to devise and implement new and better systems;
- To support U.S. foreign policy objectives.

The primary purpose of a U.S. Government international health manpower policy is to establish the qualitative rather than quantitative nature of U.S. Government activities. This policy should tell "how" not "how much." How much involves opportunities, politics, and specific situations. In the absence of such basic knowledge, it is not appropriate to specify "how much." Further, it is improper to take away from administrators and managers their responsibility and authority to allocate resources consistent with policy guidelines.

A comprehensive U.S. policy on international health manpower should address five broad areas of activity: U.S. assistance to other countries, domestic health resources, immigration policy, exchange programs, and a national program for international health. The rest of this chapter is devoted to recommendations for U.S. policy in each of these areas, and offers some suggestions for effective policy management.

U.S. Assistance to Other Countries. Foreign health workers serve local and national needs in their own or other countries, or they serve as truly international health manpower – for example, in a WHO program such as the recent malaria program or the current Tropical Disease Research Program. In either case, they may be trained in their own countries, in the United States, or in a third country.

Training includes local social patterns, informal networks of communication, and various levels of formal training. Considerable knowledge has already been developed by the time a person enters medical school, nursing school, or even a training program for community health workers. When individuals leave their community or country and do not return, there is a loss of service, investment, and leadership. While the impact of such losses in the developed countries may be small, in developing countries it is often serious.

Therefore, any training assistance which the United States provides to other nations, especially developing nations, should be geared to helping them create and rely on their own resources to meet their domestic and international health manpower needs.

Under the broad objective of providing assistance which encourages self-reliance, what kinds of training should the United States support? Traditionally, we have trained foreign health manpower in medicine, nursing, and public health. Recently, however, training program support has been requested in other health professions such as pharmacy, osteopathy, and the allied health professions. The health system support disciplines such as management, health system science, and educational methodology have also been invited to collaborate in the training programs. These new areas of interest reflect developing countries' needs for a variety of health system operators including managers, planners, and policy makers. Planners and policy makers in particular need to understand basic principles of epidemiology and be able to collect simple data for epidemiological purposes. These skills will be required by all levels of health care delivery manpower as well.

The United States should expand its training relationships with foreign countries to include all health care and system support manpower at all health system levels. The preparation of researchers should be given special attention in order to support country self-reliance in health research.

Biomedical and health system training should prepare individuals for entry-level through senior-level positions. Initially, biomedical researchers may have to be trained away from home in the settings required for such research. In order to increase developing countries' capacity for research, the United States may wish to consider instituting practices analogous to U.S. affirmative action employment practices. For example, selection of developing country researchers to work with more advanced researchers of other countries need not depend solely on trainee research abilities; it may be based on a trainee's potential to benefit from such experiences.

The international health activities of U.S. nationals abroad usually involve both training local country nationals to meet their health manpower needs and serving acute needs that require skills or talents not immediately available locally.* **These U.S. health activities abroad should be based on appropriate health system and training models and, when possible, training should be conducted near eventual practice sites.**

The assessment of needs and the availability of required skills must be based on models which are consistent with local culture and capacities rather than on U.S. models of medical or health care. Furthermore, any assessment must be performed in association with local country nationals responsible for such activities and must be related to overall health planning for that country. The models on which training is based and the setting in which it takes place should reinforce the trainee's appreciation for practice that is relevant to local needs.

Excellence is relative not absolute. The attitude that only the "Western model" is excellent should be dispelled. It is far more impressive to train and practice in a health model relevant to local needs rather than in one geared to international designs.**

One recognized authority recommends training programs that are located in a rural area, away from the hospital setting, based on service to an identified local community through the existing local health system structure, and focused on research on local problems (Bryant, 1977, p. 183).

To apply an international health manpower policy based on local country self-reliance, **the United States will have to help other countries develop or expand the program and institutional capabilities of their health manpower training systems.**

---

*For example, the Tunisia Syncrisis report states that it is unlikely that Tunisians will soon be able to replace foreign physicians in their country or to provide all health services on their own. (Office of International Health, June 1975, p. 28)

**A WHO/UNICEF study described the disadvantages of not departing from "Western models," as did a report on Health Manpower Development (WHO/UNICEF, February 1975, and World Health Organization, 1976).

Particularly in developing countries, training programs and institutions are not widely available in local settings to meet local needs. Some local training takes place for community health workers but less and less is available locally as one moves to technical, mid-level and highly skilled health care providers and system support personnel. Trainers do not exist in numbers large enough to meet current, let alone expanded, needs; and training methods based on appropriate local models are not well understood. •

Furthermore, health system models themselves are changing. These changes must be integrated with training efforts so that health manpower meets operating needs and acquires attitudes of practice that support rather than distort health system objectives.

Finally, U.S. international health manpower should satisfy health manpower requirements in foreign countries only when local country nationals cannot do so. Any U.S. programs involving the services of U.S. nationals abroad should plan to phase out these workers as soon as local nationals can replace them. This pertains to health manpower for delivery, training and education, and research.

Wherever possible, U.S. health programs in foreign countries should employ local country nationals. After a reasonable period of time, local nationals should provide at least all health manpower for which skill requirements are low and which can be developed in relatively short periods of time using minimal resources. This implies, therefore, that highly skilled or highly trained persons will constitute the bulk of U.S. nationals in international health activities abroad.

Phasing out U.S. manpower does not necessarily mean phasing out other forms of assistance. In fact, it may be necessary to increase other forms of assistance at such times so that the movement towards local self-reliance will not be disrupted.

U.S. Reliance on Domestic Resources. Earlier in this chapter, we observed that the United States has nearly reached a balance between domestic health manpower supply and demand. This appears to be true for health care providers, researchers, and system support personnel. Since this balance does not appear to be significantly disturbed by U.S. requirements for international health manpower outlined in this report, **the United States can and should rely on its own resources, both human and financial, to meet its domestic and international health manpower needs.**

The U.S. pool of health manpower is made up of a wide variety of individuals, most of whom are not directly involved in international health. Of those who are, some work full time on international health, others only part time; some work in government, others in the private sector or in international organizations; some are professionals, others paraprofessionals or technicians; many others bring to bear whatever skills or capacities they possess. In all cases, they work both in the United States and abroad.

The pool of talent potentially available nationwide could be a powerful force in international health. At present, there is widespread interest by individuals and institutions in international health activity. The question is how to make the best use of this manpower.

Skill requirements for international health manpower can be expected to shift as conditions change in various countries — for example, from infectious and parasitic disease to cancer and cardiovascular disease; from lower to higher stages of economic development; or from early reliance on U.S. health manpower to eventual reliance on local country nationals. These requirements, rather than the existing supply of health manpower, will dictate assignments.

International health workers are likely to be called upon to provide expertise in certain areas such as maternal and child health, nutrition, and infectious disease. Technical expertise, however, is not enough. These individuals must be able to work in a cross-cultural setting, skilled in the art of consultation, and sensitive to the constraints imposed by a developing society, including economic deprivation and an often primitive administrative structure. Traditional attitudes derived from religious beliefs, cultural mores, or the values and attitudes of the ex-colonial mother country may pose serious obstacles for the international health worker whose job, first and foremost, is to be an agent of change. Delicate skill is demanded of such people. If they push too hard, they will alienate their clients; and yet, if change is to take place, they must challenge the traditional modus operandi. Therefore, the personal characteristics of international health workers are critical to their ultimate success, perhaps more critical than technical, scientific, or management skills.

Because of shifting needs and conditions and given the range and variety of skills required, it may prove difficult to engage qualified U.S. international health manpower to implement a U.S. international health policy. One way to ensure a qualified supply would be to develop new kinds of U.S. health manpower. This would imply creating new disciplines or recruiting individuals into educational or training programs in existing disciplines to meet projected international health needs at some later time. Another approach would be to recruit U.S. health manpower from existing pools of trained U.S. nationals. This would involve recruiting individuals who have already completed education or training in existing disciplines to meet specific international health needs as they arise. The second approach appears more flexible and adaptive, and better suited to the task of matching future needs with capable persons who can fulfill them. A program to use U.S. health manpower in international activities is discussed later in this chapter.

U.S. Immigration Policy. Health manpower generally migrates to places where the individual rewards are greatest rather than where the social product is largest. This is the case when health professionals move from developing to developed countries and when mid-level health workers go from rural to urban settings within a country.

Whether one sees the individual or society as more important in settling the issue of international migration depends on one's politics and ideology. In either case, with the present near balance of U.S. domestic requirements and supply of manpower, **it is inappropriate for this country to foster, even on a selective basis, the migration of foreign health manpower to meet U.S. needs.** Rather, foreign health manpower should fall under the provisions of overall U.S. immigration policy. In addition, U.S. international health manpower policy should encourage cooperation with other countries to minimize the attraction for health workers to migrate away from their home countries.

Exchange Programs. The elimination of selective U.S. immigration policies that favor the migration of international health manpower should not be accompanied by a cutback of international exchange programs. **The United States should continue to foster mutually beneficial international health service, training, and research programs involving collaboration between U.S. and foreign health manpower.**

Both U.S. and foreign health professionals have benefited in the past from programs outside their home countries and experiences with health manpower from other countries. These experiences have been in health service, training, and research; they have included direct exchanges of individuals and intergovernmental and institutional exchanges of employees, faculty, and students.

If carefully managed, such exchange programs can avoid "brain drain." Various organizations have in fact conducted exchange programs in which most of those involved returned to their home countries and in which mutually appropriate benefits were realized by all parties involved (for example, the NIH visitor and exchange programs, the Rockefeller/Johns Hopkins faculty exchange programs, and special projects arranged through associations representing groups of U.S. health professions schools).

Most of these successful programs have involved health manpower who were practicing in their home countries, who were selected to acquire additional skills in their own or other health-related disciplines, and who were scheduled to return to positions back home. In addition to the direct benefits of such programs, indirect benefits result from improvements that occur in the home country health system when these health professionals return home. Such improvements often help to alleviate conditions which make it less attractive for trained health manpower to practice in their home countries.

U.S. health manpower also benefits from properly conducted exchange experiences. Aside from obvious information sharing, these experiences can result in better understanding by U.S. health workers of our domestic needs in areas such as primary care, preventive medicine, public health, and improved models for community health services.

259

It is unlikely, however, that this sort of learning will take place unless Americans are trained to be students of international health problems rather than skilled exporters of American solutions to health problems. Moreover, Americans will have to learn to value the spirit of inquiry and humility in their international health experiences. One important way to foster these attitudes might be to establish a highly visible and prestigious training program for both U.S. and foreign health manpower – for example, Presidential scholars for international health or health manpower education. Such a program would concentrate on health workers still in training or in the early stages of career development.

A U.S. Manpower Program for International Health Activities. Currently, there is no systematic program to develop the national pool of U.S. health manpower for international health activities. The situation is similar to that of our forest resources around the beginning of this century – there were plenty of trees, but they were being used wastefully. Furthermore, there is little concern about the future availability of international health talent.

It is unrealistic to expect the individual members of the pool to manage themselves. In the international health system, jobs and skill requirements change more often and are more specialized than in domestic health. It is difficult for U.S. nationals to know what is needed in other countries so that they can seek appropriate education and training experience. Furthermore, it is difficult for trained individuals to locate international positions which are appropriate for their skills and offer career potential. These difficulties are compounded by the parochial and compartmentalized recruitment and assignment processes now existing in international health agencies and organizations.

Given these difficulties, **the U.S. Government should assume responsibility for developing the international capabilities of existing, trained U.S. health personnel by involving as many of them as possible in international health activities.** New mechanisms must be found to ease movement between government agency positions in the United States and abroad, in the private sector, and in international organizations. The key seems to be the development of **flexible personnel procedures**, an active **clearinghouse of information** on upcoming positions, and a **placement service** to match international assignments with persons in the national pool. These functions should be accomplished through an appropriate mix of governmental and nongovernmental mechanisms.

Such a program to manage the U.S. pool of human health resources would not change or assume the responsibilities of persons or organizations now involved in international health activities. But, by managing the pool, promoting interest in international health assignments, and aiding in recruitment and assignment processes, it would assist others to meet their current and future manpower requirements; it would not perform any of their functions.

The program would perform governmentwide functions in support of its primary responsibilities. These might include assessing supply and demand, working with training programs, and employing agencies to meet national and worldwide requirements.

Besides these nationwide activities, **the U.S. Government should develop the careers of its own international health employees by rotating them in assignments within government, outside government, and with international, multilateral organizations. This policy will motivate more skilled and dedicated professionals to seek careers in international health.**

U.S. Government agencies employ U.S. nationals in international health activities both here (for example, in HEW, AID, the State Department, and the Peace Corps) and abroad (for example, in the Peace Corps, embassies, and AID missions). They engage in a variety of activities including research, training and education, service, program administration, planning, and policy making.

The changing nature of requirements for service in international health activities demands a continuing involvement in international health assignments abroad, a continuing refurbishment of disciplinary and professional competencies, a continuing improvement in administrative and policy-making skills, and a continuing renewal of knowledge of existing foreign policy and world attitudes and conditions. Unless these competencies are maintained, the abilities of international health personnel serving in government agencies will deteriorate. Consequently, we must find ways for U.S. Government workers to serve abroad, and with other government agencies, and then find ways to bring them back into international health activities in U.S. Government agency positions.

U.S. health workers also serve as representatives to multilateral international health organizations such as WHO and UNICEF. As countries move toward greater and more direct collaboration in determining priorities and conducting activities which seek self-reliance, linkages with international organizations will become more important. Systematic rotations of employees from all countries and organizations through international organizations may be one way to achieve these linkages.

Additionally, it may be possible to pursue international health goals via U.S.-sponsored programs operated by specific international organizations. A proportional number of positions in these programs could be filled with individuals assigned by or through a U.S. Government agency.

Another significant issue for U.S. Government agencies is the balance between the so-called general and technical workers on their staffs.* In some Government agencies, such as AID and the Peace Corps, the recent trend has been to employ more generalists than technical persons in international health.* In other agencies, such as HEW, technical persons occupy most positions. We believe that the U.S. Government should maintain a more appropriate balance in the proportions of technical and general personnel filling international health positions in Federal agencies.

---

* Here, reference to a technical person implies established knowledge or skill in one of the health-related disciplines – for example, medicine, public health, nursing, or health economics. Reference to a generalist implies a basic understanding of developmental and assistance policies and procedures in the U.S. Government and its relevant agencies and departments.

In addition, a variety of technicians and generalists should be fairly and adequately represented at policy levels in government agencies. One result of such a staffing policy would be to provide other countries with models for involving technical persons such as nursing professionals and allied health professionals in management, programing, policy making, and planning at all levels in their health service systems and health organizations.

We cannot overemphasize the need for trained international leadership in the U.S. Government. With appropriate leadership, the reservoir of American expertise in international health can be tapped. The U.S. Government can do this by establishing international health as a priority, providing a focus in government to carry it out, staffing its agencies with trained and motivated personnel, and providing adequate funding to permit governmental, higher education, and private-sector organizations to work together to get the job done.

Policy Management and International Health Manpower

As described earlier, a number of U.S. Government agencies and other U.S. organizations train and deploy all types of international health manpower in many different ways. In addition to U.S. efforts, other countries and organizations also train and place international health personnel. Yet despite all these activities, the world is facing a critical shortage and maldistribution of appropriate human health resources.

A multifaceted U.S. international health manpower policy such as the one we have outlined can help solve some of the problems. However, implementation of this policy will require effective management techniques at all levels. To identify some of these management mechanisms, we can divide implementation efforts into two broad categories – support of existing programs and the initiation and promotion of new programs.

The management mechanisms needed to coordinate ongoing government and international health manpower activities include:

- Evaluation of procedures to determine whether objectives are being met and when policy ought to be modified;
- Statistical collection and analysis to establish the magnitude of current efforts and provide a basis for estimating future needs;

---

* For example, in 1968, the Milch Report revealed that AID employed 510 persons who were classified in the health series. Now there are 129 classified in this series.

- Policy-level review and reporting to refine policy and settle strategic and operational disagreements at lower levels of management;

- Strategic-level review to monitor interprogram consistency with policy and strategic concerns and to find ways to resolve strategic problems and operational-level conflicts;

- An open forum to obtain advice from all parties involved, including academic institutions, foundations, and private and voluntary organizations, and to inform them of government intentions and actions (regularly through periodic reporting, and more extensively through periodic conferences);

- Operational-level mechanisms to facilitate coordination among categorically focused organizations.

The promotion or initiation of new projects in international health involves identifying needs or opportunities for assistance or collaboration in other countries, promoting these objectives in the United States and host countries, designing and selecting appropriate projects, and allocating responsibility for implementation among the many U.S. agencies involved in international health.

Effective promotion and initiation of new projects demands knowledge about foreign policy and foreign relations, foreign aid and developmental assistance, health and health-related technical matters, and a variety of other subjects such as foreign trade, science and technology, and diplomacy.

Currently, there are no systematic mechanisms operating throughout the government to develop and implement new projects consistent with our international health and foreign policies. The coordinating mechanisms described in Chapter 2 would meet this need.

If we look at international health activities in historical perspective, we find that notable advances depended upon unique individuals sent abroad by missionary societies, research institutes, or the medical corps of a particular government. It is rather difficult to subsume Father Damian, Walter Reed, Margaret Mead, Tom Dooley, and Carleton Gajdusek under a depersonalized concept of health manpower. In other words, meaningful contributions to international health are ultimately going to be made by individuals with faces, personalities, and individual genius. The nature of the task calls for initiative, intelligence, and adaptability – precious qualities which must not be bureaucratized out of existence in any health manpower scheme.

References for Chapters 1-8

Association of American Medical Colleges. November 1, 1969. Survey of Medical School International Activities. Washington, D.C.: AAMC.

Bland, John. July 1976. Health manpower development. World Health. Geneva: WHO.

Blumenthal, W.M. March 9-10, 1977. Statement Before the Subcommittee on Foreign Assistance and Economic Policy of the Senate: International Financial Institutions; Hearings on S. 871 and S. 872. (U.S. Senate Committee on Foreign Relations). Washington, D.C.: U.S. Government Printing Office.

Bryant, John. 1969. Health and the Developing World. Ithaca, N.Y.: Cornell University Press.

Bryant, John. 1977. One world or many: America's role in medical education. In George E. Miller, ed., Medical Education in the Contemporary World. Washington, D.C.: Fogarty International Center (NIH) and U.S. Government Printing Office.

Bunker, John. January 15, 1970. Surgical manpower: a comparison of operations and surgeons in the U.S. and in England and Wales. New England Journal of Medicine. Vol. 282, No. 3. Boston, Mass.: Massachusetts Medical Society.

Callaher, J. 1976. Educational planning and health. WHO Chronicle, 30. Geneva: WHO.

Center for Disease Control. 1972. Ten-State Nutrition Survey, 1968-79. (Vol. IV-Biochemical) Washington, D.C.: U.S. Government Printing Office.

Commission on Private Philanthropy and Public Needs. (John H. Filer, Chairperson) 1975. Giving in America: Toward a Stronger Voluntary Sector. Washington, D.C.

Comptroller General of the United States. May 5, 1976. Strengthening and Using Universities as a Resource for Developing Countries. (ID-76-57) Washington, D.C.: U.S. Government Printing Office.

Conover, Donald. June 1972. Psychiatric distinctions: new and old approaches. Journal of Health and Social Behavior. Vol. 13. Washington, D.C.: American Sociological Association.

d'Arge, Ralph C. 1972. Economic growth and the natural environment. In A. V. Kneese and B. T. Bower, eds., Environmental Quality Analysis: Theory and Method in the Social Sciences. Baltimore: Johns Hopkins Press.

Health Resources Administration. March 1976. Survey of Foreign Nursing Graduates. Washington, D.C.: U.S. Government Printing Office.

Horn, James J. 1977. The medical "brain drain" and health priorities in Latin America. International Journal of Health Services. (Vol. 7, No. 3) Farmingdale, N.Y.: Baywood Publishing Co.

Horowitz, Abraham. 1974. First Pan American Conference on Health Manpower Planning. (Scientific Publication No. 279) Washington, D.C.: PAHO.

House Committee on International Relations. July 22, 1975. Committee Print: Implementation of "New Directions" in Development Assistance. Washington, D.C.: U.S. Government Printing Office.

Huddle, Franklin. June 1975. Science and Technology in the Department of State: Bringing Technical Content Into Diplomatic Policy and Operations. Washington, D.C.: Congressional Services, Library of Congress and U.S. Government Printing Office.

Laudicina, Paul A. 1975. World Poverty and Development. (Monograph 8) Washington, D.C.: Overseas Development Council.

Milch, R. A. Unpublished. Policy Determination for United States Government Programs in International Health, Final Report of August 1968. Prepared for the Office of Science and Technology, Executive Office of the President. Washington, D.C.: The White House.

National Academy of Sciences. 1977. World Food and Nutrition Study: The Potential Contributions of Research. Washington, D.C.: NAS.

Office of Assistant Secretary of Defense for Health Affairs. September 1975. Iran: Health Care Survey for U.S. Retired Service Personnel and Dependents. Washington, D.C.: U.S. Government Printing Office.

Office of International Health (HEW). May 1975. Botswana, Lesotho, and Swaziland Syncrisis. Washington, D.C.: U.S. Government Printing Office.

Office of International Health (HEW). June 1976. Senegal Syncrisis. Washington, D.C.: U.S. Government Printing Office.

Office of International Health (HEW). June 1975. Tunisia Syncrisis. Washington, D.C.: U.S. Government Printing Office.

Overseas Development Council. 1977. The United States and World Development: Agenda, 1977. New York: Praeger.

Quimby, Freeman H. May 1971. The Politics of Global Health. Prepared for the Congressional Research Service, Library of Congress. Washington, D.C.: U.S. Government Printing Office.

U.S. Agency for International Development. 1975. Implementation of "New Directions" in Development Assistance. Washington, D.C.: U.S. Government Printing Office.

U.S. Agency for International Development. Advisory Committee on Voluntary Foreign Aid. 1974. A Look to the Future: The Role of Agencies in International Assistance. Washington, D.C.: AID.

U.S. Department of Commerce. December 1976. U.S. Services Industries in World Markets; Current Problems and Future Policy Development. Washington, D.C.: U.S. Government Printing Office.

World Bank. 1974. International Bank for Reconstruction and Development Environmental, Health and Human Ecologic Considerations in Economic Development Projects. (2nd Edition) Washington, D.C.: World Bank.

World Bank. March 1975. Health Policy Paper. (Annex 6) Washington, D.C.: World Bank.

World Bank. March 1975. Health Policy Paper. (Annex 9) Washington, D.C.: World Bank.

World Health Organization. 1976. Health Manpower Development. WHO Chronicle, 30. Geneva: WHO.

World Health Organization/United Nations Children's Fund. February 1975. Joint Study on Alternative Approaches to Meeting Basic Health Needs of Populations in Developing Countries. (JC20/UNICEF-WHO/75.2) Geneva: WHO/UNICEF.

Part II

Appendixes

List of Appendixes

Page

Appendix 1 Index of U.S. Government Activities in International Health 245

1-A Activities of the Federal Government in International Health (Fiscal Year 1976) 245

1-B International Health-Related Activities of the Federal Government (Fiscal Year 1976) 256

1-C Health Services Delivery Activities Overseas for the Protection of U.S. Citizens (Fiscal Year 1976) 257

1-D U.S. Contributions to International Development Lending Institutions and Other International Organizations in Support of International Health Activities (1976) 258

Appendix 2 Index of U.S. Government Committees With International Health Interests 261

2-A Congressional Committees Related to International Health Activities of Government Agencies 261

2-B Formal U.S. Interagency Committees Guiding Policy in the Health Sector 264

2-C Federal Advisory Committees Involved in International Health 268

Appendix 3 Annotated List of U.S. Government Programs in International Health 270

3-A Agencies of the U.S. Government and Their Program Involvement in International Health 270

3-B International Organization Program Descriptions 313

3-C International Financial Institutions 320

Appendix 4 Chronological List of U.S. Legislative Authorities Related to International Health 322

Appendix 5 Special Analyses of International Health 332

5-A Country-Specific Health Activities of U.S. Government Agencies (Fiscal Year 1976) 332

5-B International Health Activities in Research by the U.S. Government, Fiscal Year 1976 (in Thousands of Dollars) 341

Appendix 6 Bibliography 342

Introduction to Appendixes

The various aspects of international health are very poorly documented in standard reporting systems by public and private agencies. The information contained in our report was drawn from the files and resource materials of almost every agency of the government, of private organizations, and individuals. In addition to providing basic data, these contributors generously gave their insights and analyses from which we have derived much that is in this report. To our knowledge, this material was not otherwise available in current literature or other collections of information.

These appendixes contain the factual and supporting data, as well as conceptual frameworks for our assessment of international health. They are designed to serve as a resource for future studies and for development of public policy. We have enumerated activities, budgets, functions, and legislative authorities of the numerous agencies and organizations involved in international health. These data constitute the first known attempt to methodically present this information.

The appendixes also afford a systematic survey of all U.S. involvement in international health activities. They include a series of analyses which document the most recent and best available data on the mechanisms and processes through which the U.S. Government, along with private and commercial sectors, participates in the improvement of international health.

We are indebted to everyone who assisted us in compiling this information. After assembling the appendixes, we asked our sources to verify in writing the materials we had collected. The information which follows is presented with their approval.

Appendix 1

Index of U.S. Government Activities in International Health

1-A. Activities of the Federal Government in International Health (Fiscal Year 1976)

Federal Agency	Legislative Authority	Total Funding ($1,000)	Activities	Functions	Target Group
1. ACTION (Peace Corps)	P.L. 87-293	$10,038	Manpower training	Development assistance Medical diplomacy and diplomatic relations	Developing nations
			Volunteers in health services delivery, health planning, health education, disease control, and sanitation	Development assistance Medical diplomacy and diplomatic relations	Disaster victims Developing nations
2. Agency for International Development	P.L. 87-195, Sections 103, 104, 105, 106	$201,557[1]	Manpower and institutional development	Development assistance Medical diplomacy and diplomatic relations Scientific and professional exchange	Developing nations U.S. and foreign medical and scientific community Disaster victims
			Health auxiliary training	Development assistance Medical diplomacy and diplomatic relations	Developing nations Disaster victims
			Organizing medical services	Development assistance Medical diplomacy and diplomatic relations	Developing nations
			Disease prevention and control	Development assistance Medical diplomacy and diplomatic relations	Developing and developed nations U.S. citizens at home U.S. citizens living or traveling abroad Disaster victims
			Delivery of health services	Development assistance Medical diplomacy and diplomatic relations	Developing nations Disaster victims
			Food fortification	Development assistance	Developing nations Disaster victims
			Population planning services	Development assistance Medical diplomacy and diplomatic relations	Developing nations Disaster victims
			Introduction of new food technologies	Development assistance Scientific and professional research exchange	Developing nations U.S. and foreign medical and scientific community

---

Note: Information contained in Appendix 1-A is based on information verified by the agencies.

[1] Does not include Food for Peace Program funds.

Federal Agency	Legislative Authority	Total Funding ($1,000)	Activities	Functions	Target Group
Agency for International Development *(continued)*		$3,189	Emergency relief services	Development assistance Medical diplomacy and diplomatic relations	Developing nations Disaster victims
		$5,365	American schools and hospitals abroad	Development assistance Medical diplomacy and diplomatic relations Health protection of U.S. citizens	Developing and developed nations U.S. citizens living or traveling abroad U.S. and foreign medical and scientific community
			Sanitation	Development assistance Medical diplomacy and diplomatic relations	Disaster victims Developing nations
			Health services research	Development assistance Research, scientific, and professional exchange	Developing nations U.S. and foreign medical and scientific community
			Demographic data collection	Development assistance Research, scientific, and professional exchange	Developing nations U.S. and foreign medical and scientific community
			Fertility control research	Development assistance Research, scientific, and professional exchange	Developing nations U.S. and foreign medical and scientific community Disaster victims
			Development of indigenous foods	Development assistance Research, scientific, and professional exchange	Developing nations U.S. and foreign medical and scientific community
			Disaster preparedness research	Development assistance Research, scientific, and professional exchange	Developing nations U.S. and foreign medical and scientific community
			Health planning	Development assistance Research, scientific, and professional exchange	Developing nations U.S. and foreign medical and scientific community Disaster victims
			Population planning	Development assistance Research, scientific, and professional exchange	Developing nations Disaster victims U.S. and foreign medical and scientific community
			Nutrition planning	Development assistance Research, scientific, and professional exchange	Developing nations Disaster victims U.S. and foreign medical and scientific community
			Environmental health planning	Development assistance Research, scientific, and professional exchange	Developing nations Disaster victims U.S. and foreign medical and scientific community

Federal Agency	Legislative Authority	Total Funding ($1,000)	Activities	Functions	Target Group
Agency for International Development *(continued)*			Technical cooperation with international organizations	Development assistance Research, scientific, and professional exchange	Developing nations Disaster victims U.S. and foreign medical and scientific community
			Special Foreign Currency Programs	Development assistance Research, scientific, and professional exchange	Developing nations U.S. and foreign medical and scientific community Disaster victims
3. Department of Agriculture	P.L. 80-806 P.L. 83-480 P.L. 83-690 P.L. 89-809	$2,164[1]	Cooperative research	Development assistance	Developing nations
			Technical assistance in agriculture development	Development assistance	Developing nations
			Agriculture training	Development assistance	Developing nations
			Food aid programs	Development assistance	Developing nations
4. Department of Commerce	P.L. 87-256 15 U.S.C. 1512, Sections 175, 313 16 U.S.C. 742 (d and g)	$ 322[2]	Market research	Commercial relations	Developing and developed nations U.S. business community U.S. and foreign medical and scientific community
	49 U.S.C. 1463		Educational and cultural exchange Trade seminars	Research, scientific, and professional exchange Commercial relations	Developed and developing nations U.S. business community U.S. and foreign medical and scientific community
			Educational and cultural exchange Trade fairs	Commercial relations	Developed and developing nations U.S. business community U.S. and foreign medical and scientific community
			Trade missions and centers	Commercial relations	Developing and developed nations U.S. business community U.S. and foreign medical and scientific community
			Weather reporting and research	Research, scientific, and professional exchange	Developed and developing nations U.S. citizens at home U.S. citizens living or traveling abroad Disaster victims
			Fisheries research	Health protection of U.S. citizens Commercial relations	Developing and developed nations U.S. citizens at home U.S. business community

---

[1] Included are Special Foreign Currency Program funds of $1,464,000. Not included are Food for Peace Program funds.

[2] Funds for activities such as weather research and reporting and fisheries research and development could not be segregated according to their health impact so that these funds are not included.

Federal Agency	Legislative Authority	Total Funding ($1,000)	Activities	Functions	Target Group
18. Department of State	P.L. 79-264 P.L. 80-643 P.L. 83-665 P.L. 92-494 P.L. 93-188 22 U.S.C. 287 (m-t) 22 U.S.C. 1926 22 U.S.C. 2219 (a) 22 U.S.C. 2221 (a) 22 U.S.C. 2291 (a) 22 U.S.C. 2501A 44 Stat. 2031 60 Stat. 1886 62 Stat. 2679, TIAS 1808 21 U.S.T. 1567, TIAS 6919	$104,156[1]	Emergency ad hoc medical support	Development assistance Medical diplomacy and diplomatic relations	Developing and developed nations Disaster victims
			Assessed U.S. contributions to the health activities of the U.N. system (WHO, PAHO, UNRWA, UNFPA, FAO, UNICEF, UNESCO, IARC, UNDP, UNFDAC, OECD, UNEP, UNVP)	Development assistance Medical diplomacy and diplomatic relations	Developing and developed nations
			Science attachés and consuls	Development assistance Medical diplomacy and diplomatic relations Research, scientific, and professional exchange Commercial relations	Developing and developed nations U.S. citizens at home U.S. and foreign medical and scientific community
			Policy monitoring and representation to international organizations	Development assistance Medical diplomacy and diplomatic relations Research, scientific, and professional exchange	Developing and developed nations
			Cooperative research	Development research Medical diplomacy and diplomatic relations	Developing and developed nations U.S. and foreign medical and scientific community
19. Department of Treasury	*Asian Development Bank* P.L. 89-369 P.L. 92-245 P.L. 93-537 *African Development Fund* P.L. 94-302 *Inter-American Development Bank* P.L. 86-147 P.L. 88-259 P.L. 89-6 P.L. 90-88 P.L. 90-325 P.L. 91-599 P.L. 92-246 P.L. 94-302	$53,770[1]	Assessed contributions to the health activities of ADB, AFDF, IDB, WB, IMF	Development assistance	Developing nations
			Oversight of commercial relations	Commercial relations	Developed nations U.S. business community

---

[1] Excludes medical care services for Foreign Service personnel. Includes only the U.S. contributions in support of the health activities of U.N. organizations. See Appendix 1-D for a detailed explanation.

[2] This figure is based on the U.S. contributions to health activities of the international development banks. See Appendix 1-D for a detailed explanation.

Federal Agency	Legislative Authority	Total Funding ($1,000)	Activities	Functions	Target Group
Department of Treasury *(continued)*	*International Development Association* P.L. 86-565 P.L. 88-310 P.L. 92-247 *International Finance Corporation* P.L. 84-350 *International Bank for Reconstruction and Development* P.L. 79-171 P.L. 86-48 P.L. 91-599				
20. United States Information Agency	P.L. 79-724 P.L. 80-402 P.L. 87-256 P.L. 90-494 P.L. 93-168 P.L. 93-475 P.L. 94-272 Executive Order 10477 Executive Order 11034 Executive Order 11311	$ 344	Motion pictures and television shows on health topics	Research, scientific, and professional exchange Commercial relations	U.S. business community U.S. and foreign medical and scientific community
			Voice of America broadcasts	Development assistance	Developing and developed nations U.S. citizens living or traveling abroad U.S. and foreign medical and scientific community
			Press and publications on health topics	Development cooperation Medical diplomacy and diplomatic relations Commercial relations	Developing and developed nations U.S. and foreign medical and scientific community Disaster victims
21. Veterans Administration	P.L. 85-857 P.L. 91-225 P.L. 93-82 P.L. 94-484 38 U.S.C. 230 38 U.S.C. 631 and following Subchapter IV 38 U.S.C. 4101	$6,287	Financing health services for Philippine veterans	Development assistance	Developing nations
			Postgraduate training of foreign nationals in the United States	Research, scientific, and professional exchange	Developing and developed nations U.S. citizens at home U.S. and foreign medical community

TOTAL $484,630

Federal Agency	Legislative Authority	Total Funding ($1,000)	Activities	Functions	Target Group
Department of Commerce *(continued)*			Food supply	Medical diplomacy and diplomatic relations Health protection of U.S. citizens Commercial relations	Developing and developed nations U.S. citizens at home U.S. business community
			Standards development and applied technology	Development assistance Research, scientific, and professional exchange Health protection of U.S. citizens	Developing and developed nations U.S. citizens at home
5. Department of Defense	P.L. 83-480 P.L. 85-861 P.L. 94-106 P.L. 94-212 P.L. 94-329	$22,939[1]	Army and Navy infectious disease research related to tropical medicine	Medical diplomacy and diplomatic relations Research, scientific, and professional exchange	Developing nations U.S. citizens living or traveling abroad U.S. and foreign medical and scientific community
		$ 413	Education and training	Medical diplomacy and diplomatic relations Research, scientific, and professional exchange	Developing nations U.S. and foreign medical and scientific community
		$ —[2]	Disaster relief	Development assistance Medical diplomacy and diplomatic relations	Disaster victims
6. Energy Research and Development Administration	P.L. 83-703	$ 7,256[3]	Biomedical research of Marshall Islands population exposed to nuclear fallout	Research, scientific, and professional exchange	U.S. citizens at home U.S. citizens living or traveling abroad Disaster victims
			Radiation effects research foundation studies of survivors of atomic bomb explosion in Japan	Research, scientific, and professional exchange	U.S. citizens at home U.S. citizens living or traveling abroad Disaster victims
7. Environmental Protection Agency	P.L. 83-480 P.L. 91-190 P.L. 92-500 P.L. 94-469 P.L. 95-95	$ 2,514[4]	Research training	Research, scientific, and professional exchange	Developed nations U.S. and foreign medical and scientific community
			Policy development	Health protection of U.S. citizens	Developed nations U.S. citizens at home
			Educational and cultural exchange	Research, scientific, and professional exchange	Developed nations U.S. and foreign medical and scientific community
			Technical assistance in environmental health	Development assistance	Developing nations Disaster victims

---

[1] Includes Special Foreign Currency Program funds.

[2] Specific funding estimates for the health activities in DOD were not available.

[3] Special Foreign Currency Program health research funds were not obligated in FY 1976.

[4] Includes Special Foreign Currency Program international health funds of $2,385,572.

Appendix 1

Federal Agency	Legislative Authority	Total Funding ($1,000)	Activities	Functions	Target Group
8. Export-Import Bank	P.L. 79-173 P.L. 90-390 12 U.S.C. 635	$ ——[1]	Loans, insurance, and guarantees for the export of biomedical equipment and health facility construction materials, pharmaceuticals	Commercial relations Development assistance Research, scientific, and professional exchange	U.S. business community Developing and developed nations U.S. and foreign medical and scientific community
9. Federal Aviation Administration	P.L. 85-726	$ 5	Joint U.S.-U.S.S.R. research on medical aspects of flight	Medical diplomacy and diplomatic relations Research, scientific, and professional exchange	Developed nations
10. Department of Health, Education, and Welfare	P.L. 75-717 P.L. 78-410 P.L. 83-480 P.L. 84-941 P.L. 85-507 P.L. 85-795 P.L. 86-610 P.L. 87-195 P.L. 89-698 P.L. 93-353 P.L. 94-295 P.L. 94-484 P.L. 95-83	$39,247 (19,905)	*National Institutes of Health*		
			– International health conferences and seminars	Research, scientific, and professional exchange	U.S. and foreign medical and scientific community
			– Scholars-in-Residence Program	Medical diplomacy and diplomatic relations Research, scientific, and professional exchange	U.S. and foreign medical and scientific community
			– Special Foreign Currency Programs	Research, scientific, and professional exchange	U.S. citizens at home Developing and developed nations U.S. and foreign medical and scientific community
			– International education programs	Research, scientific, and professional exchange	U.S. and foreign medical and scientific community
			– Bilateral agreements for cooperation in biomedical research	Research, scientific, and professional exchange	Developing and developed nations U.S. citizens at home U.S. and foreign medical and scientific community
			– Geographic health studies	Development assistance Research, scientific, and professional exchange	Developing and developed nations U.S. and foreign medical and scientific community
			– Coordination of NIH international research activities	Medical diplomacy and diplomatic relations	U.S. and foreign medical and scientific community

---

[1] Export-Import Bank does not receive appropriated funds; however, $55,783,000 was spent for these activities.

Federal Agency	Legislative Authority	Total Funding ($1,000)	Activities	Functions	Target Group
Department of Health, Education, and Welfare *(continued)*			*National Institutes of Health (continued)*		
			– Cooperative research through National Cancer Institute (NCI); National Heart, Lung, and Blood Institute (NHLBI); National Institute of Allergy and Infectious Diseases (NIAID); National Institute of Arthritis, Metabolism, and Digestive Diseases (NIAMDD); National Institute of Environmental Health Science (NIEHS); and National Institute of Child Health and Human Development (NICHD)	Research, scientific and professional exchange	U.S. and foreign medical and scientific community
			– International Visitors Program	Medical diplomacy and diplomatic relations	U.S. and foreign medical and scientific community
		(5,222)	*Center for Disease Control*		
			– Epidemiological Intelligence	Health protection of U.S. citizens	U.S. citizens at home U.S. citizens living or traveling abroad U.S. and foreign medical and scientific community
			– Disease prevention and control	Development assistance Health protection of U.S. citizens	Developing nations U.S. citizens at home Disaster victims
			– Research	Research, scientific, and professional exchange	Developing nations U.S. citizens at home U.S. and foreign medical and scientific community
			– Laboratory support and collaboration	Development assistance	Developing nations U.S. citizens living or traveling abroad
		(3,682)	*Health Resources Administration*		
			– Research training	Research, scientific, and professional exchange	U.S. and foreign medical and scientific community
		(1,578)	*Food and Drug Administration*		
			– Intramural research	Research, scientific, and professional exchange Health protection of U.S. citizens	U.S. citizens at home

Federal Agency	Legislative Authority	Total Funding ($1,000)	Activities	Functions	Target Group
Department of Health, Education, and Welfare *(continued)*			– Inspection of foreign firms' products	Health protection of U.S. citizens Commercial relations	U.S. citizens at home U.S. business community
			– Monitoring adverse drug reactions	Research, scientific, and professional exchange	U.S. citizens at home
		(5,304)	*Alcohol, Drug Abuse, and Mental Health Administration*		
			– Research on the prevention and control of mental illness, alcoholism, and drug abuse	Research, scientific, and professional exchange	Developed nations U.S. citizens at home
		(4,000)	*Office of the Assistant Secretary for Human Development (RSA)*		
			– Research on ethnicity, mental and social welfare	Research, scientific, and professional exchange Health protection of U.S. citizens	U.S. citizens at home U.S. and foreign medical and scientific community
		(2,160)	*Health Services Administration*		
			– Health services research	Research, scientific, and professional exchange Health protection of U.S. citizens	U.S. citizens at home U.S. and foreign medical and scientific community
		(2,312)	*Office of the Assistant Secretary for Health*		
			– International organization policy development	Development assistance Medical diplomacy and diplomatic relations	U.S. citizens at home Developing and developed nations U.S. citizens living or traveling abroad
			– International Health Representatives Committee	Research, scientific, and professional exchange	U.S. citizens at home Developing and developed nations U.S. foreign medical and scientific exchange
			– Integration of domestic and international activities	Research, scientific, and professional exchange Health protection of U.S. citizens	U.S. citizens at home
			– Administration of bilateral scientific agreements	Medical diplomacy and diplomatic relations Research, scientific, and professional exchange	Developing and developed nations U.S. and foreign medical and scientific community

Federal Agency	Legislative Authority	Total Funding ($1,000)	Activities	Functions	Target Group
Department of Health, Education, and Welfare *(continued)*			– Special Foreign Currency Program administration	Medical diplomacy and diplomatic relations Research, scientific, and professional exchange	Developing nations U.S. and foreign medical and scientific community
			– Technical planning assistance and geographical area studies	Development assistance	Developing nations
11. Inter-American Foundation	P.L. 91-175, Section 401	$1,077	– Training and education	Development assistance	Developing nations
			– Health services delivery	Development assistance	Developing nations
			– Health planning and administration	Development assistance	Developing nations
12. Department of the Interior	P.L. 90-496 P.L. 94-165 P.L. 94-241 P.L. 94-303 48 U.S.C. 168(a) 48 U.S.C. 1421 (a) 48 U.S.C. 1661 Executive Order 10211 Executive Order 11021	$13,599[1]	Manpower training	Development assistance Health protection of U.S. citizens	Developing nations U.S. citizens at home U.S. citizens living or traveling abroad Disaster victims
			Hospital renovation	Development assistance Health protection of U.S. citizens	Developing nations U.S. citizens at home U.S. citizens living or traveling abroad Disaster victims
			Organizing health services	Development assistance Health protection of U.S. citizens	Developing nations U.S. citizens at home U.S. citizens living or traveling abroad Disaster victims
			Disease prevention and control	Development assistance Health protection of U.S. citizens	Developing nations U.S. citizens at home U.S. citizens living or traveling abroad Disaster victims
13. Department of Labor	P.L. 87-256	$ 60 (USIA funded)	Seminars on occupational health and safety topics	Research, scientific, and professional exchange	U.S. and foreign medical and scientific community

---

[1] Included are FY 1976 appropriations for American Samoa and the trust territories of the Pacific.

Federal Agency	Legislative Authority	Total Funding ($1,000)	Activities	Functions	Target Group
14. National Academy of Sciences (Institute of Medicine)	No legislative authority for FY 1976 P.L. 95-83 (FY 1977)	$ 0[1]	Special analysis of biomedical research programs in the United States	Research, scientific, and professional exchange	U.S. and foreign medical and scientific community
15. National Science Foundation	P.L. 81-507	$5,412[2]	International cooperation in studies on the environment, biology, and tropical and communicable diseases	Development assistance Research, scientific, and professional exchange	Developed and developing nations U.S. citizens at home U.S. and foreign medical and scientific community
			Educational and cultural exchange	Research, scientific, and professional exchange	Developing and developed nations U.S. citizens at home U.S. and foreign medical and scientific community
16. Office of Science and Technology Policy	P.L. 94-282	$ 0[3]	Science and technology policy analysis and advice	Development assistance Research, scientific, and professional exchange Health protection of U.S. citizens	Developing and developed nations U.S. business community U.S. and foreign medical and scientific community
			Review of Federal research and development programs	Development assistance Research, scientific, and professional exchange Health protection of U.S. citizens	Developing and developed nations U.S. business community U.S. and foreign medical and scientific community
17. Overseas Private Investment Corporation	22 U.S.C. 2191	$ 0[4]	Guarantees, loans, and insurance to U.S. firms for: – Establishment or expansion of projects to manufacture and service medical supplies and equipment, pharmaceuticals, etc. – Projects not primarily related to health but that do include education, nutrition programs, etc. – Construction of health facilities	Development assistance Research, scientific, and professional exchange Commercial relations	U.S. business community

---

[1] No specific funds were obligated for this activity.

[2] Includes Special Foreign Currency Program health funds of $214,761.

[3] No specific funds were obligated for these activities.

[4] OPIC does not receive appropriated funds; however, $11,700,000 was spent for these activities.

1-B. International Health-Related Activities of the Federal Government (Fiscal Year 1976)

Federal Agency	Legislative Authority	Total Funding ($1,000)	Activities	Functions	Target Group
National Aeronautics and Space Administration	P.L. 85-568	$43,015	Environmental quality monitoring – Nimbus G – SAGE (Stratospheric Aerosol and Gas Experiment)	Research, scientific, and professional exchange	Developed nations U.S. citizens at home U.S. and foreign scientific and medical community
			Communication satellites – ATS-6 (Applied Technology Satellite) – CTS (Commercial Technology Satellite)	Research, scientific, and professional exchange Development assistance Commercial relations	Developed and developing nations U.S. citizens at home Disaster victims U.S. and foreign medical and scientific community
			Satellite remote sensing – Landsat (Demographic data, etc.)	Commercial relations Development assistance Research, scientific, and professional exchange	Developing and developed nations U.S. citizens at home Disaster victims U.S. and foreign medical and scientific community
			Ground-based water treatment projects – Water Hyacinth Research Program	Development assistance Research, scientific, and professional exchange	Developing nations U.S. citizens at home U.S. and foreign medical and scientific community

TOTAL $43,015

1-C. Health Services Delivery Activities Overseas for the Protection of U.S. Citizens (Fiscal Year 1976)

Federal Agency	Legislative Authority	Total Funding ($1,000)	Activities	Functions	Target Group
1. Canal Zone Government	P.L. 87-845	$ 25,800	Health services delivery	Medical diplomacy and diplomatic relations Health protection of U.S. citizens	Developing nations U.S. citizens living or traveling abroad U.S. and foreign medical and scientific community
			Environmental health	Development assistance Health protection of U.S. citizens	Developing nations U.S. citizens living or traveling abroad
			Disease control	Development assistance Health protection of U.S. citizens	Developing nations U.S. citizens living or traveling abroad
			Disaster relief	Research, scientific, and professional exchange	Disaster victims
			Educational and cultural exchange	Research, scientific, and professional exchange	U.S. and foreign medical and scientific community
2. Department of Defense	P.L. 85-861 P.L. 87-293 P.L. 94-419, Section 740	$625,000[1]	Health services delivery	Health protection of U.S. citizens	U.S. citizens living or traveling abroad
	NATO Status of Forces Agreement, 1951	$ 7,000	CHAMPUS (Civilian Health and Medical Program of the Uniformed Services)	Health protection of U.S. citizens	U.S. citizens living or traveling abroad
3. U.S. Information Agency	———	$ 767	Health services delivery	Health protection of U.S. citizens	U.S. citizens living or traveling abroad
4. Department of State	———	$ 8,700[1]	Health services delivery	Health protection of U.S. citizens	U.S. citizens living or traveling abroad
5. Veterans Administration	38 U.S.C. 109	$ 1,588	Health services delivery	Health protection of U.S. citizens	U.S. veterans and dependents

TOTAL $668,855

---

[1] Includes the provision of health services to eligible beneficiaries of other U.S. Federal agencies overseas.

1-D. U.S. Contributions to International Development Lending Institutions and Other International Organizations in Support of International Health Activities (1976)

International Development Agency	Legislative Authority	Percent Health Activities	Estimated Total Funding ($1,000)
Asian Development Bank*	P.L. 89-369 P.L. 92-245 P.L. 93-537	10	$ 13,620
African Development Fund*	P.L. 94-302	50	7,500[1]
Inter-American Development Bank*	P.L. 86-147 P.L. 88-259 P.L. 89-6 P.L. 90-88 P.L. 90-325 P.L. 91-599 P.L. 92-246 P.L. 94-302	7	16,070[2]
World Bank*	P.L. 79-171 P.L. 84-350 P.L. 86-48 P.L. 91-599	5	16,580[3]
International Development Association[4]	P.L. 86-565 P.L. 88-310 P.L. 92-247		
World Health Organization**	P.L. 80-643	100	34,913[5]
Pan American Health Organization**	Pan American Sanitary Code, November 1924 (44 Stat. 2031)	100	17,411[6]
United Nations Relief and Works Agency**	22 U.S.C. 2221 (a)	40	15,626[7]
United Nations Fund for Population Activities**	22 U.S.C. 2219 (a)	100	20,000[8]
United Nations International Children's Emergency Fund**	22 U.S.C. 1926	39	8,698[9]
International Agency for Research on Cancer**	P.L. 92-494	100	$ 571[10]
Food and Agriculture Organization**	60 Stat. 1886 TIAS 554	3	87[11]
United Nations Educational, Scientific, and Cultural Organization**	22 U.S.C. 287 (m-t)	2	45[12]
United Nations Development Programs**	22 U.S.C. 2221(a)	5	5,000[13]
United Nations Environment Program	87 Stat. 713	18	1,323[14]
Organization for Economic Cooperation and Development	Agreement on Ending the War and Restoring Peace in Vietnam, January 27, 1973. TIAS 7542	–	–[15]

Note: Information reported here is based on data verified by the Department of the Treasury and the particular U.N. organization.

International Development Agency	Legislative Authority	Percent Health Activities	Estimated Total Funding ($1,000)
United Nations Volunteers Program	22 U.S.C. 2501A (b-2)	10	20[16]
International Monetary Fund	P.L. 79-171	0	0
United Nations Fund for Drug Abuse Control	22 U.S.C. 2291 (a)	15	462[17]

Total U.S. Contribution to International Development Lending Institutions . . . . $ 53,770

Total U.S. Contribution to U.N. Organizations $104,156

* Funding for the international health programs of the international development lending institutions (IDLIs) can be divided in three ways: development assistance approved (specifically loans and technical assistance); actual funds dispersed; and accumulative financial assistance. Each of these methods will provide a distinct estimate of the annual funding activities of the ILDIs. Additionally, the programs of the development banks (Africa Development Fund, World Bank, Inter-American Development Bank, Asian Development Bank) are reported according to the relative calendar year or fiscal year. The fiscal year in this context refers to the financial reporting year utilized by the U.S. Government. In line with these observations a surrogate measure of the U.S. contribution to health programs financed by the development banks in 1976 can be assessed in the following manner:

$$\text{U.S. Authorized Contributions in FY 1976} \times \text{Percentage of Health Loans and Technical Assistance Approved by the ILDIs in Calendar Year 1976}$$

These estimates do not reflect the total financial involvement of the development banks in the health field; however, they would provide a general indication of the flow of funds.

** U.S. funding for the international health programs of the U.N. organizations can be estimated using the following surrogate measure:

$$\text{U.S. Authorized Contributions in FY 1976} \times \frac{\text{Health-Sector Expenditures by U.N. Organizations in FY 1976}}{\text{Total Expenditures by the U.N. Organizations in FY 1976}}$$

1–D – Explanatory Notes

[1] The African Development Fund receives funds through the African Development Bank (ADB). The United States is not directly associated with ADB as a member.

[2] The Caribbean Development Bank (CDB) receives funding for its activities through IDB. The United States is not directly associated with CDB as a member.

[3] Included are loans to Yugoslavia, thus reflecting a higher estimate of U.S. contributions to the World Bank than that reported elsewhere in Chapter 7. The FY 1976 health projects are used as the basis for this calculation.

Direct FY 1976 U.S. contributions appropriated by Congress to the International Development Bank for Reconstruction and Development were low in comparison to previous years; therefore U.S. contributions to health programing as reflected in this table are low. The Department of the Treasury estimates total U.S. financial participation in the World Bank in fiscal year 1976 to be 25 percent. Based on this premise, U.S. contributions to health loan activities of the World Bank would be $64.4 million.

[4] Funds for IDA are included in the total funding estimate of the World Bank.

[5] Based on estimates from the Regular Budget outlined in the WHO document Proposed Programme Budget for FY 1978, 1979, World Health Organization Document No. 236. These estimates are adjusted to include administrative and general regional funding.

---

[6] Based on estimates of PAHO funding only, excluding World Health Organization contributions. These estimates are based on data from Proposed Program and Budget Estimates, PAHO, 1977 and 1978, Pan American Health Organization Document No. 141. Included is administrative funding.

[7] Included are UNRWA's emergency relief health programs (nutrition, medical services, and sanitation improvement). Based on calendar year 1976 estimates proposed by Department of State, Bureau of International Organization Affairs.

[8] Based on calendar year 1976 estimates proposed by Department of State, Bureau of International Organization Affairs.

[9] Based on calendar year 1976 estimates proposed by Department of State, Bureau of International Organization Affairs.

[10] Based totally on U.S. authorized contributions to IARC in FY 1976.

[11] Estimates include calendar year 1976 FAO Regular Program funds only, exclusive of contributions from UNDP, UNFPA, WFP, and UNEP. Based on data from FAO and Department of State, Bureau of International Organization Affairs.

[12] Based on calendar year 1976 data from the Department of State, Bureau of International Organization Affairs.

[13] Based on data from the UNDP for calendar year 1976.

[14] Based on 1976 estimates from Department of State, Bureau of International Organization Affairs.

[15] Funding data on OECD's health activities is unavailable.

[16] Data is based on the total UNVP budget and percentage volunteers involved in the health projects.

[17] Includes prevention, treatment, and research activities in calendar year 1976.

Appendix 2

Index of U.S. Government Committees With International Health Interests

2-A. Congressional Committees Related to International Health Activities of Government Agencies

House Authorizing Committees

- Agriculture
  - Agriculture
  - Health, Education, and Welfare
- Armed Services
  - Defense
  - Panama Canal Company
- Banking, Finance, and Urban Affairs
  - Export-Import Bank
  - Treasury
- Education and Labor
  - Health, Education, and Welfare
- International Relations
  - ACTION
  - Agency for International Development
  - Commerce
  - Defense
  - Environmental Protection Agency
  - Health, Education, and Welfare
  - Inter-American Foundation
  - Labor
  - Overseas Private Investment Corporation
  - State
  - United States Information Agency
- Interior and Insular Affairs
  - Interior

(House Authorizing Committees continued)

- Interstate and Foreign Commerce
    - – Commerce
    - – Health, Education, and Welfare
- Merchant Marine and Fisheries
    - – Commerce
    - – Panama Canal Company
- Post Office and Civil Service
    - – Department of Health, Education, and Welfare
- Public Works and Transportation
    - – Federal Aviation Administration
- Science and Technology
    - – Energy
    - – National Aeronautics and Space Administration
    - – National Science Foundation
    - – Office of Science and Technology Policy
- Veterans Affairs
    - – Veterans Administration

Senate Authorizing Committees

- Agriculture, Nutrition, and Forestry
    - – Agriculture
- Armed Services
    - – Defense
    - – Panama Canal Company
- Banking, Housing, and Urban Affairs
    - – Export-Import Bank

- Commerce, Science, and Transportation
  - Commerce
  - Federal Aviation Administration
  - National Aeronautics and Space Administration
  - Office of Science and Technology Policy

- Energy and Natural Resources
  - Energy
  - Interior

- Foreign Relations
  - ACTION
  - Agency for International Development
  - Commerce
  - Defense
  - Environmental Protection Agency
  - Health, Education, and Welfare
  - Inter-American Foundation
  - Labor
  - Overseas Private Investment Corporation
  - State
  - Treasury
  - United States Information Agency

- Human Resources
  - Health, Education, and Welfare
  - Environmental Protection Agency
  - National Science Foundation
  - Office of Science and Technology Policy

- Veterans Affairs
  - Veterans Administration

2-B. Formal U.S. Interagency Committees Guiding Policy in the Health Sector

1. Asian Development Bank

Committee: National Advisory Council on International Monetary and Financial Policies

Participants: Department of the Treasury (Chairman)
Agency for International Development
Department of Agriculture
Department of Commerce
Department of Defense
Department of State
Export-Import Bank
Federal Reserve Board
National Security Council
Office of Management and Budget

2. Food and Agriculture Organization

Committee: Food and Agriculture Organization Interagency Committee

Participants: Department of Agriculture (Chairman)
Agency for International Development
Department of Commerce
Department of Defense
Department of Health, Education, and Welfare
Department of the Interior
Department of Labor
Department of State
Department of the Treasury
Office of Management and Budget
Representatives of private food or agricultural organizations

3. Inter-American Development Bank

Committee: National Advisory Council on International Monetary and Financial Policies

Participants: Department of the Treasury (Chairman)
Agency for International Development
Department of Agriculture
Department of Commerce
Department of Defense
Department of State
Export-Import Bank

Federal Reserve Board
National Security Council
Office of Management and Budget

4. International Monetary Fund

Committee: National Advisory Council on International Monetary and Financial Policies

Participants: Department of the Treasury (Chairman)
Agency for International Development
Department of Agriculture
Department of Commerce
Department of Defense
Department of State
Export-Import Bank
Federal Reserve Board
National Security Council
Office of Management and Budget

5. United Nations Children's Fund

Committee: United Nations Economic Committee

Participants: Department of State (Chairman)
Agency for International Development
Department of Agriculture
Department of Health, Education, and Welfare

6. United Nations Development Program

Committee: United Nations Economic Committee

Participants: Department of State (Chairman)
Agency for International Development
Department of Agriculture
Department of Commerce
Department of Health, Education, and Welfare
Department of Labor
Department of the Treasury

7. United Nations Environmental Program

Committee: Committee on International Environmental Activities

(United Nation's Environmental Program continued)

Participants: Department of State (Chairman)
Agency for International Development
Central Intelligence Agency
Council of Economic Advisers
Council on Environmental Quality
Department of Agriculture
Department of Commerce
Department of Defense
Department of Energy
Department of Health, Education, and Welfare
Department of Housing and Urban Development
Department of the Interior
Department of Justice
Department of Labor
Department of Transportation
Environmental Protection Agency
National Academy of Sciences
National Aeronautics and Space Administration
National Science Foundation
Office of Management and Budget
Smithsonian Institution
U.S. Information Agency

8. United Nations Fund for Drug Abuse Control

Committee: Cabinet Committee on International Narcotics Control

Participants: Department of State (Chairman)
Agency for International Development
Central Intelligence Agency
Department of Agriculture
Department of Defense
Department of Justice
Department of the Treasury
National Security Council
Office of Management and Budget
U.S. Information Agency

9. United Nations Fund for Population Activities

Committee: United Nations Economic Committee

Participants: Department of State (Chairman)
Agency for International Development

Department of Agriculture
Department of Commerce
Department of Health, Education, and Welfare
Department of Labor
Department of State
Department of the Treasury

10. World Bank

Committee: National Advisory Council on International Monetary and Financial Policies

Participants: Department of the Treasury (Chairman)
Agency for International Development
Department of Agriculture
Department of Commerce
Department of Defense
Department of State
Export-Import Bank
Federal Reserve Board
National Security Council
Office of Management and Budget

Note: List includes only formal interagency committees or advisory committees involving two or more agencies. These were identified in the survey as bodies relied upon by agencies to coordinate the formulation or implementation of policy toward organizations.

Source: U.S. Senate, Committee on Government Operations, 1977. U.S. Participation in International Organizations. Washington, D.C.: U.S. Government Printing Office.

2-C. Federal Advisory Committtess Involved in International Health

Committee Name	Date of Origin	Purpose
Advisory Committee of the Export-Import Bank of the United States (Export-Import Bank)	1954 (Terminated 1977)	To advise the Export-Import Bank about its program
Advisory Committee on Science and Technology and Foreign Affairs (Department of State)	1973 (Terminated 1975)	To provide outside expertise and counsel on current and long-range foreign affairs problems and opportunities created by or involving scientific or technological development
Advisory Committee on Science, Technology, and Human Values (National Endowment for the Humanities)	1973	To advise with respect to general policy concerning types of research and educational activities that will be useful in the advancement of science, technology, and human values
Advisory Committee on Voluntary Foreign Aid (Agency for International Development)	1946	To coordinate governmental and private programs in the field of foreign relief and register and work with interested agencies and groups
Advisory Council of the Overseas Private Investment Corporation (Overseas Private Investment Council)	1970 (Terminated 1977)	To serve as a link between OPIC and the private business community
Advisory Committee of U.S. Participation in the U.N. Conference on Human Settlements (Department of State)	1976 (Considered by Department of State as not within the Advisory Committee Act; terminated 1976)	To promote national observance in the United States of the U.N. conference on habitat and a better understanding of the problems of our environment
Agency for International Development Research Advisory Committee (Agency for International Development)	1962	To provide guidance on the AID research program, appraise all research proposals, and evaluate progress of research projects
Board for International Food and Agricultural Development (Agency for International Development)	1976	To assist in the administration of programs improving international efforts, to advise about more effective application of agricultural sciences, and to increase world food production, thereby strengthening agricultural institutional development and research and providing increased and longer support for scientific solutions to food and nutrition problems of developing countries
Board of Foreign Scholarships (Department of State)	1946 (Considered an operational, not advisory, committee; terminated 1976)	To select students, scholars, teachers, trainers, and other persons to participate in the exchange programs conducted under the Mutual Educational and Cultural Exchange Act
National Commission for the Observance of World Population Year (Department of State)	1974 (Considered by Department of State as not within the Advisory Committee Act)	To promote in the United States appropriate observance of 1974 as Population Year and to create a better understanding of the problems of population growth and the relationship of this problem to the quality of human life

Committee Name	Date of Origin	Purpose
National Commission on the Observance of International Women's Year, 1975 (Department of State)	1975 (Considered by Department of State as not within the Advisory Committee Act; terminated 1978)	To promote in the United States observance of 1975 as International Women's Year, as proclaimed by the United Nations General Assembly
National Review Board for the Center for Cultural and Technical Interchange Between East and West (Department of State)	1965 (Terminated 1976; consolidated)	To review the program and operations of the East-West Center from the standpoint of the national interest and advise the Secretary of State through the Assistant Secretary for Educational and Cultural Affairs
National Voluntary Service Advisory Council (ACTION)	1973 (Terminated 1976)	To advise the Director of ACTION with respect to policy matters in the administration of the Domestic Volunteer Service and Peace Corps Acts, and upon his/her request review the effectiveness of programs under those acts and make recommendations for improvements, such as eliminating duplication of efforts
United States Advisory Commission on International Educational and Cultural Affairs (Department of State)	1961	To formulate and recommend to the President policies for exercising authority under the Mutual Educational and Cultural Exchange Act and to appraise the effectiveness of programs carried out by it
United States National Commission for UNESCO (Department of State)	1946 (Considered by State Department as not within Advisory Committee Act)	To associate the principal bodies interested in educational, scientific, and cultural matters with the work of UNESCO, act in an advisory capacity to their national delegations, and function as liaison agencies (as specified in the constitution of UNESCO)

References

Foreign Affairs Division – Congressional Research Service, Library of Congress.

General Services Administration. Federal Advisory Committees, Fifth Annual Report of the President; Calendar Year 1976.

Office of Management and Budget. Advisory Committees Recommended for Termination or Consolidation (mimeo). Spring 1977.

U.S. Congress. Senate Committee on Foreign Relations and House Committee on International Relations. April 1975. Role of Advisory Committees in U.S. Foreign Policy. Washington, D.C.: U.S. Government Printing Office.

Appendix 3

Annotated List of U.S. Government Programs in International Health

3-A. Agencies of the U.S. Government and Their Program Involvement in International Health

1. Action

The purpose of ACTION is to strengthen the impact and appeal of citizen participation in programs providing personalized services, both at home and abroad, to people whose needs are compelling. In striving to reach its goal of a system of volunteer service which uses to the fullest advantage the power of the American people to serve the purposes of this nation, the agency identifies and develops the widest possible range of opportunities for mobilizing the American spirit of service among all ages. It provides centralized coordination and administration of domestic and international volunteer activities sponsored by the Federal Government.

ACTION was created as an independent agency under the provisions of Reorganization Plan 1 of 1971, effective July 1, 1971, and Executive Order 11603 of June 30, 1971, with legislative authority provided by the Peace Corps Act of 1961 (75 Stat. 612, as amended; 22 U.S.C. 2501), for international operations (see Figure 13).

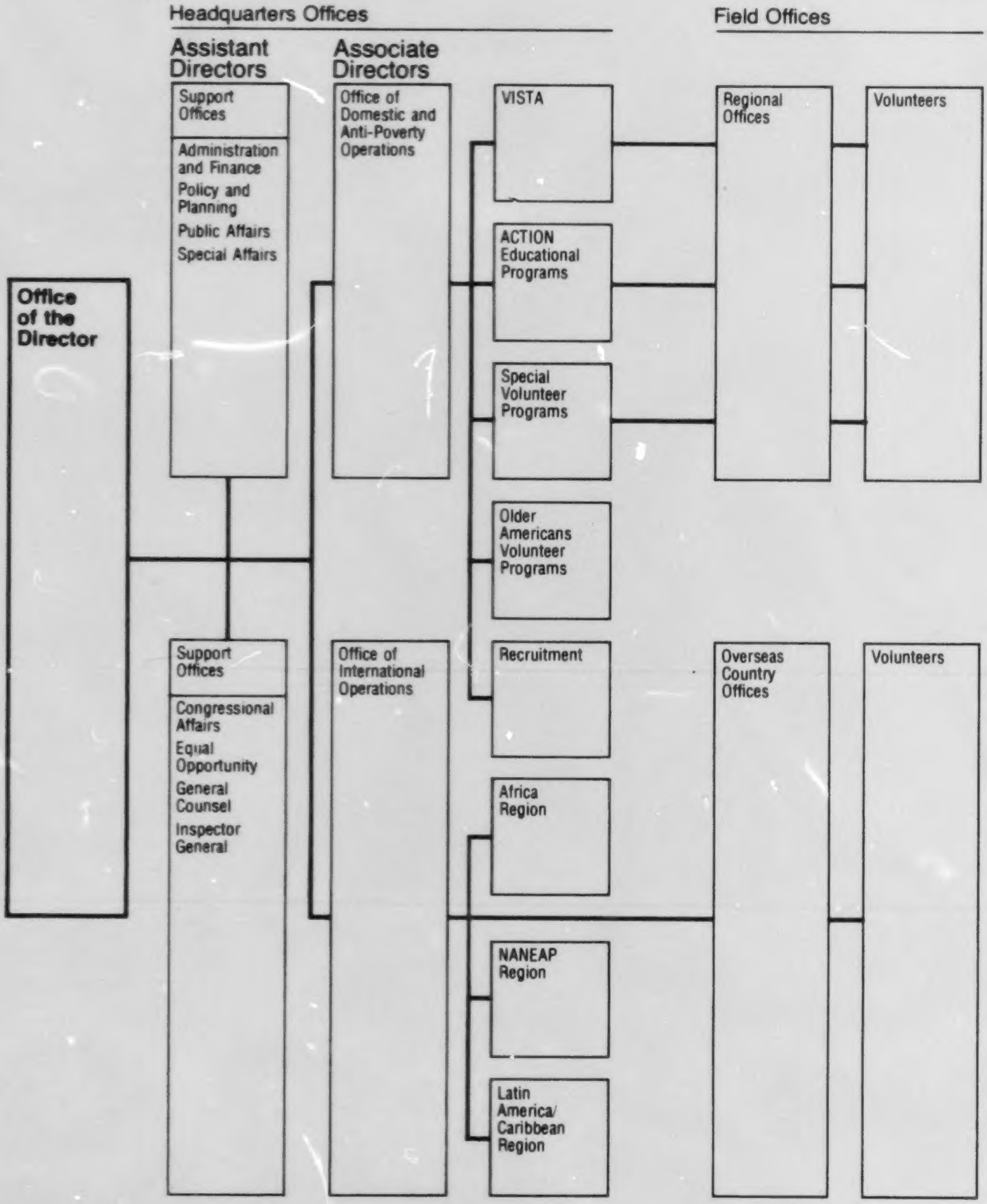
Programs and Activities

The Peace Corps. On creating the Peace Corps in 1961, the Congress declared that it would have as its mission the promotion of world peace and friendship; it would help the peoples of other countries in meeting their needs for trained manpower; it would help promote in the American people a better understanding of other peoples throughout the world.

To fulfill its mandate, men and women from all ages and walks of life are trained and then placed overseas in countries where needs are critical, those that request volunteers to aid in their economic and social development. Volunteers serve for a 2-year period, work in the communities to which they are sent, and live among the people they are helping. Beyond the immediate demands of their jobs, they are expected to become involved in community life and to demonstrate, through their voluntary service, that *people* can be an essential impetus for development.

These volunteers work primarily in the areas of agriculture/rural development, health, and education. Programs coordinate efforts to match the skills and community-level approach of the volunteers with the resources of host country agencies and other international organizations. In the field of health, volunteers are trained and perform activities such as health services delivery, health planning, health education, disease control, and sanitation.

Figure 13. Action


Headquarters Offices
Field Offices
Assistant Directors
Associate Directors
Support Offices
Administration and Finance
Policy and Planning
Public Affairs
Special Affairs
Office of Domestic and Anti-Poverty Operations
VISTA
ACTION Educational Programs
Special Volunteer Programs
Older Americans Volunteer Programs
Recruitment
Regional Offices
Volunteers
Office of the Director
Support Offices
Congressional Affairs
Equal Opportunity
General Counsel
Inspector General
Office of International Operations
Africa Region
NANEAP Region
Latin America/ Caribbean Region
Overseas Country Offices
Volunteers

Source of Information

For further information on the international health activities of ACTION, contact the Office of the Deputy Director.

2. Agency for International Development

The Agency for International Development (AID) carries out assistance programs designed to help the people of certain developing countries use to best advantage their human and economic resources, increase productive capacities, and improve the quality of human life, as well as to promote economic or political stability in friendly countries.

The Foreign Assistance Act of 1961 (75 Stat. 424; 22 U.S.C. 2381), as amended, authorizes the President to exercise his functions under that act through such agency or officer of the U.S. Government as he may direct. Executive Order 10973 of November 3, 1961, as amended, delegates to the Secretary of State the authorities set forth in the Foreign Assistance Act of 1961, as amended, and in certain other acts with limited exceptions (see Figure 14).

Programs and Activities

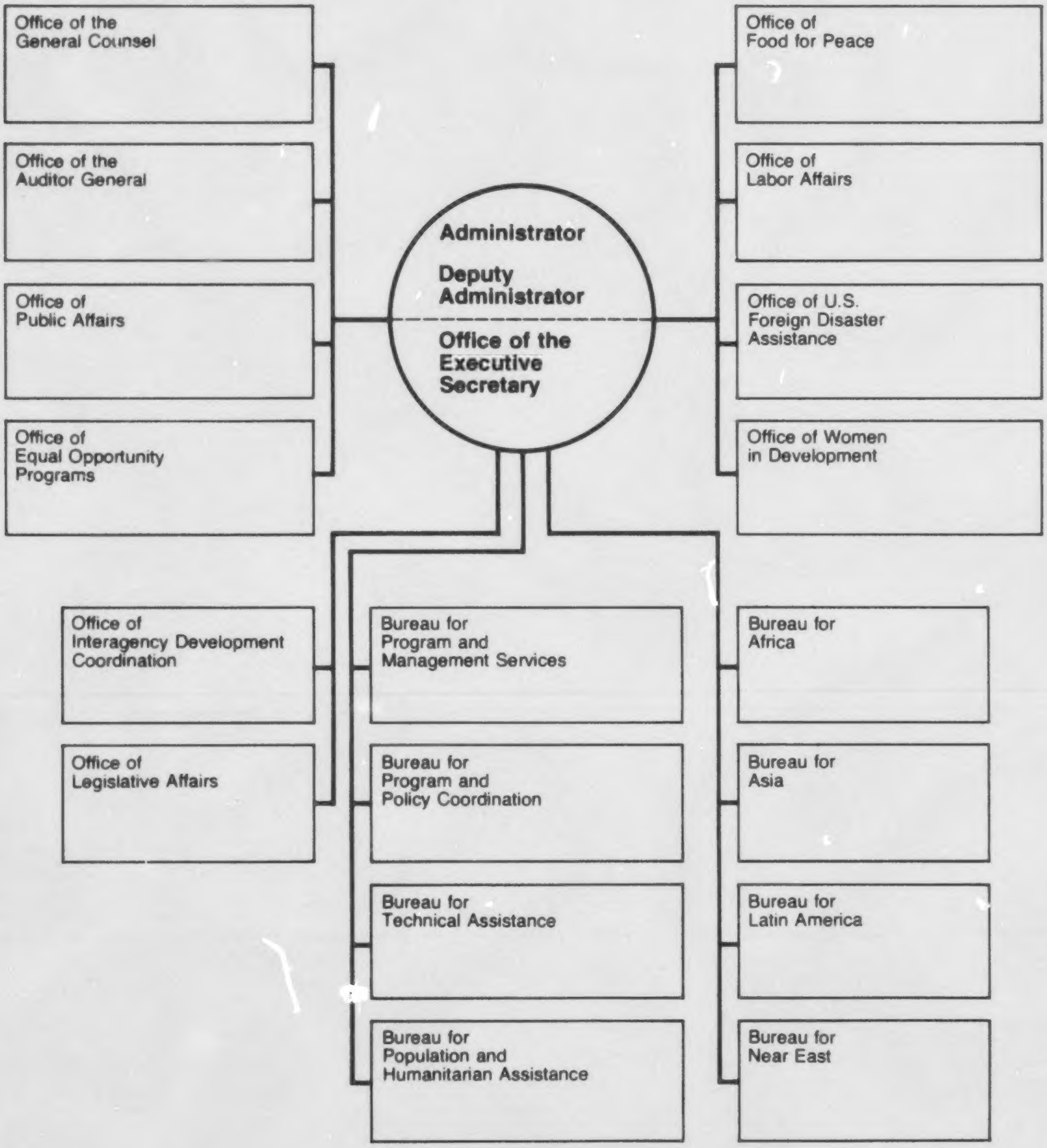
Specifically, AID administers programs under the Foreign Assistance Act, within the following major categories of assistance.

Development assistance. AID focuses its development assistance programs on critical problem areas in those functional sectors which affect the lives of the majority of people in developing countries. Some areas of concentration are nutrition, population and family planning, health, foreign disaster relief, and American hospitals and schools abroad. Specific activities in these areas include:

- Nutrition – nutrition planning, food fortification, development of indigenous foods, and introduction of new food technologies (Purpose: To alleviate starvation, hunger, and malnutrition by means of agriculture, nutrition, and rural development programs, to provide basic services for poor people by enhancing their capacity for self-help, and to increase agricultural production in those countries which have the lowest per capita incomes and which are most seriously affected by sharp increases in worldwide commodity prices; to increase the productivity and income of the rural poor through such plans as strengthening local institutions – including financial institutions, stimulating small, labor-intensive rural enterprises, expanding small-scale rural infrastructure and utilities, and establishing more secure and equitable land tenure arrangements.);

- Population and family planning – demographic data collection, fertility control research, family planning services, manpower and institutional development, and communications (Purpose: To increase the opportunities and motivation for family planning and to reduce the rate of population growth.);

Figure 14. Agency for International Development


Office of the General Counsel
Office of the Auditor General
Office of Public Affairs
Office of Equal Opportunity Programs
Office of Food for Peace
Office of Labor Affairs
Office of U.S. Foreign Disaster Assistance
Office of Women in Development
Administrator
Deputy Administrator
Office of the Executive Secretary
Office of Interagency Development Coordination
Office of Legislative Affairs
Bureau for Program and Management Services
Bureau for Program and Policy Coordination
Bureau for Technical Assistance
Bureau for Population and Humanitarian Assistance
Bureau for Africa
Bureau for Asia
Bureau for Latin America
Bureau for Near East

- Health – delivery of health services, health planning, environmental health, disease prevention and control, research, and health manpower development (Purpose: To prevent and combat disease and to help provide health services for the great majority, with emphasis on low-cost integrated delivery systems especially for rural areas through community outreach programs.);

- Foreign disaster relief – rehabilitation programs, research on technology for disaster preparedness, emergency relief health services;

- American schools and hospitals abroad – demonstration and support of U.S. medicine abroad through health services delivery and training.

Specific titles and provisions. To implement development assistance programs within its basic areas of concentration, AID utilizes the following tools authorized by the Foreign Assistance Act: (1) development loans, repayable in dollars, emphasizing assistance in long-range plans and programs designed to develop economic resources, increase productive capacities, and improve the quality of human life; (2) technical cooperation and development grants to promote economic development, with emphasis on assisting the development of human resources, including specific authorities for grants to U.S. research and educational institutions, American schools and hospitals abroad, private registered U.S. voluntary agencies in reimbursement for international transportation costs on their shipments of humanitarian relief, and rehabilitation supplies; (3) housing and other credit guaranty programs including agricultural and productive credit and self-help community development programs in Latin America; and (4) development research into, and evaluation of, the process of economic development. AID programs in Latin America are conducted through the Alliance for Progress which emphasizes the development of both human and economic resources.

Loan and grant assistance for programs relating to population growth are provided to foreign governments, the United Nations, its specialized agencies, and other international organizations and programs, U.S. and foreign nonprofit organizations, universities, hospitals, accredited health institutions, and voluntary health or other qualified organizations. To prevent famine and establish freedom from hunger, AID provides assistance to strengthen the capabilities of land grant and other eligible U.S. universities to carry out programs of teaching, research, and extension work overseas, and to support institution-building programs for development of national and regional agricultural research and extension capacities in developing countries. With respect to all assistance programs, emphasis is placed on ensuring maximum participation in the task of economic development by the people of the developing countries, through the encouragement of democratic private and local government institutions. Special emphasis is given to programs which tend to integrate women into the national economies of developing countries. Assistance may not be provided to any country engaging in a consistent pattern of human rights violations unless such assistance will directly benefit the needy people in that country.

Reimbursable Development Program. AID also administers a Reimbursable Development Program under which friendly countries are provided, through country-financed arrangements, U.S. technical services, commodities, training, etc. These programs are particularly geared to those developing countries in which U.S. concessional aid programs have been concluded or whose natural resources are of interest to the United States.

Security supporting assistance and Middle East assistance. AID administers the provision of economic assistance to friendly countries, organizations, and eligible bodies in order to support or promote economic or political stability. Currently, the principal recipients of such assistance are the countries of the Middle East.

International disaster assistance. AID administers famine and disaster relief assistance to foreign countries and maintains governmentwide coordination of relief and other aid activities in support of urgent humanitarian and disaster needs abroad. In this regard, the Agency coordinates and cooperates with the United Nations, other international organizations, and other donors. Special consideration is given to the role of American private and voluntary agencies.

The Foreign Assistance Act also grants special authority for assistance to the drought-stricken nations of Africa, including the African Sahel.

Latin American development. AID administers assistance programs for the development of Latin America, particularly to foster regional and hemispheric cooperation and development (Latin American Development Act of 1960).

Food for Peace Program. In cooperation with the Department of Agriculture, AID participates in the sale of agricultural commodities on concessional terms under Title I of Public Law 83-480 to encourage economic development, to assist in combating hunger and malnutrition, and for other purposes. Under Title II, AID administers the donation of agricultural commodities to meet famine or other urgent or extraordinary relief requirements, to combat malnutrition, to promote economic and community development, and to supply needy persons and nonprofit school lunch and preschool feeding programs outside the United States (Public Law 83-480 – Agricultural Trade Development and Assistance Act of 1954, as amended).

Source of Information

Additional information on AID international health programs can be obtained from the Office of Program and Policy Coordination. Prior to 1977 an annual report of AID international health programs was available.

3. Canal Zone Government

The Canal Zone Government is responsible for the performance of various duties connected with the civil government including health, sanitation, and protection of the Canal Zone. To this end, it maintains and operates such services as schools, hospitals and other health and sanitation services, police and fire forces, postal services, and customs and immigration services.

The Canal Zone Government was established as an independent agency by the Act of August 24, 1912 (37 Stat. 561), as amended by the act of September 26, 1950 (64 Stat. 1041), and codified in section 31 of Title 2 of the Canal Zone Code (76A Stat. 7).

The Canal Zone Government is administered by the Governor of the Canal Zone, under the supervision of the Secretary of the Army.

Source of Information

Additional information on international health activities may be obtained from the Office of the Secretary. The Panama Canal Company, in conjunction with the Canal Zone Government, produces an annual report detailing its activities in the Canal Zone.

4. Department of Agriculture

The Department of Agriculture (USDA) works to improve and maintain farm income and to develop and expand markets abroad for agricultural products. USDA helps to curb and to cure poverty, hunger, and malnutrition. It works to enhance the environment and to maintain production capacity by helping landowners protect the soil, water, forests, and other natural resources. Rural development, credit, and conservation programs are key resources for carrying out national growth policies. USDA research findings directly or indirectly benefit all Americans. Through inspection and grading services, USDA safeguards and assures standards of quality in the daily food supply.

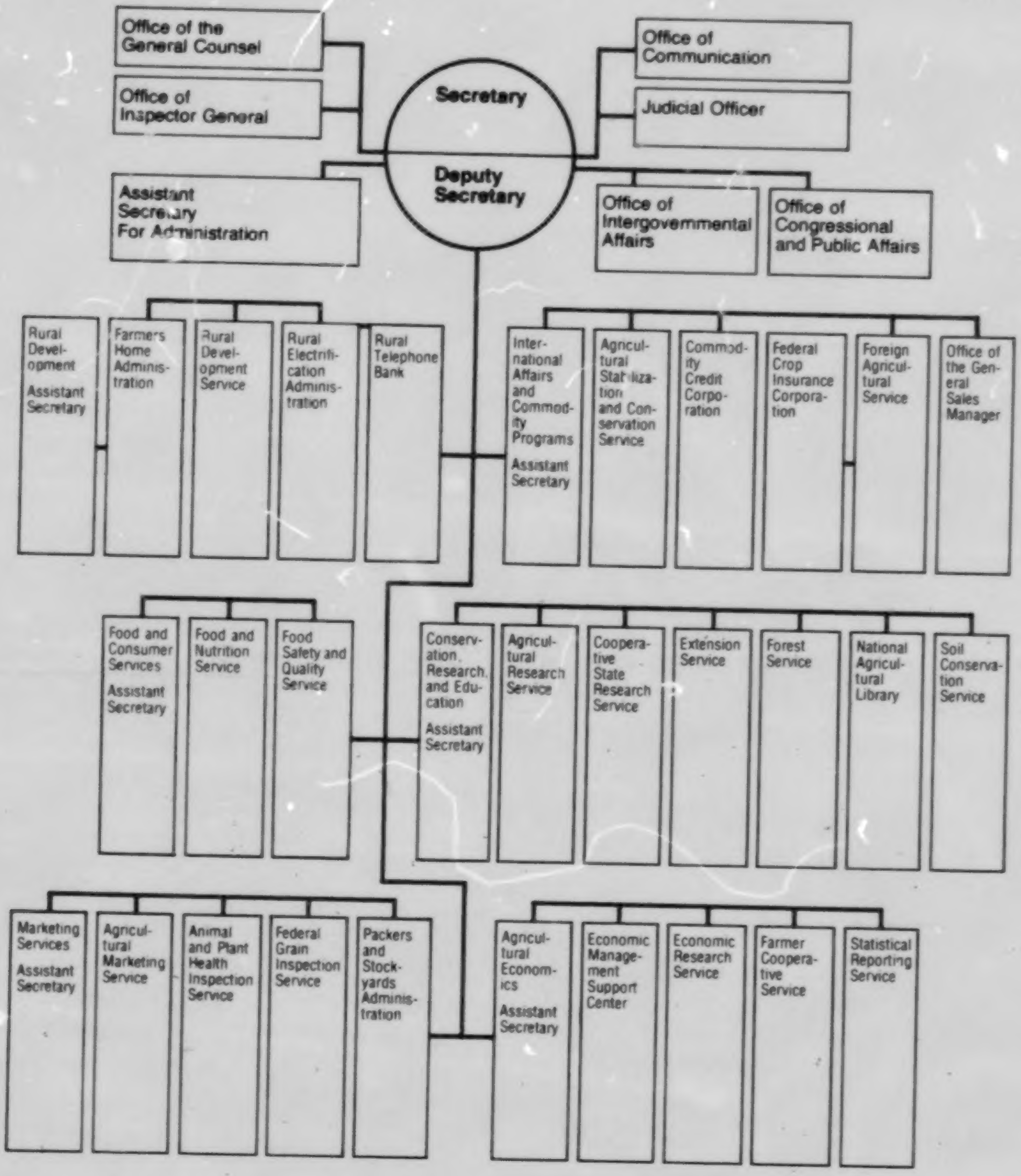
An act of Congress, approved May 15, 1862, created the Department of Agriculture, which was administered by a Commissioner of Agriculture until 1889 (12 Stat. 387; 5 U.S.C. 511, 514, 516) (see Figure 15).

Programs and Activities

Agriculture Research Service. The basic mission of Agriculture Research Service (ARS) is to provide the necessary knowledge and technology so that farmers can produce food efficiently, conserve the environment, and meet the food and fiber needs of the United States.

ARS works to improve the quality and yield of field and horticultural crops and related production technology; protect crops against diseases, pests, and pollutants; and promotes the use of nonpesticidal methods, when appropriate, to prevent residues and avoid contaminating the environment.

Figure 15. Department of Agriculture


Office of the General Counsel
Office of Inspector General
Secretary
Office of Communication
Judicial Officer
Deputy Secretary
Assistant Secretary For Administration
Office of Intergovernmental Affairs
Office of Congressional and Public Affairs
Rural Development Assistant Secretary
Farmers Home Administration
Rural Development Service
Rural Electrification Administration
Rural Telephone Bank
International Affairs and Commodity Programs Assistant Secretary
Agricultural Stabilization and Conservation Service
Commodity Credit Corporation
Federal Crop Insurance Corporation
Foreign Agricultural Service
Office of the General Sales Manager
Food and Consumer Services Assistant Secretary
Food and Nutrition Service
Food Safety and Quality Service
Conservation, Research, and Education Assistant Secretary
Agricultural Research Service
Cooperative State Research Service
Extension Service
Forest Service
National Agricultural Library
Soil Conservation Service
Marketing Services Assistant Secretary
Agricultural Marketing Service
Animal and Plant Health Inspection Service
Federal Grain Inspection Service
Packers and Stockyards Administration
Agricultural Economics Assistant Secretary
Economic Management Support Center
Economic Research Service
Farmer Cooperative Service
Statistical Reporting Service

ARS is studying and testing ways to develop superior strains of livestock and poultry; to control diseases and parasites affecting these animals; and to improve feeding and management practices that provide efficient production, while avoiding or minimizing pollution from animal wastes. USDA's foreign technical assistance programs, for example, provide consultants to supply expertise ranging from assisting in animal quarantine techniques to helping to eradicate tuberculosis among dairy cattle.

ARS is also involved in human nutrition research – such as appraising food consumption patterns and dietary levels of individuals, households, and populations – and in determining human needs for foods, nutrients, and diet patterns.

A national program staff in ARS concentrates upon ensuring the proper interaction, balance, and distribution of research effort. In addition, an International Programs Division administers foreign research activities for the Department under the Special Foreign Currency Research Program and related legislation. This Division coordinates ARS activities in international economic, technical, and cooperative assistance and relations, including training in this country in ARS subject-matter fields for foreign nations. Cooperative research activities in the health field are also coordinated through this office.

Other international activities. USDA food aid programs include P.L. 480 grants, focusing on the goal of eradicating hunger and malnutrition. The Commodity Credit Corporation extends credit to enable poorer countries to buy needed food stocks. Additionally, USDA supports studies by the Nutritional Agribusiness Group of AID-funded programs. Recent studies have benefited nutritional programs in Colombia, Brazil, and Yemen. USDA, under contract with the World Bank, performs nutrition research.

Source of Information

Additional data on the international activities of USDA may be obtained from the Office of International Affairs.

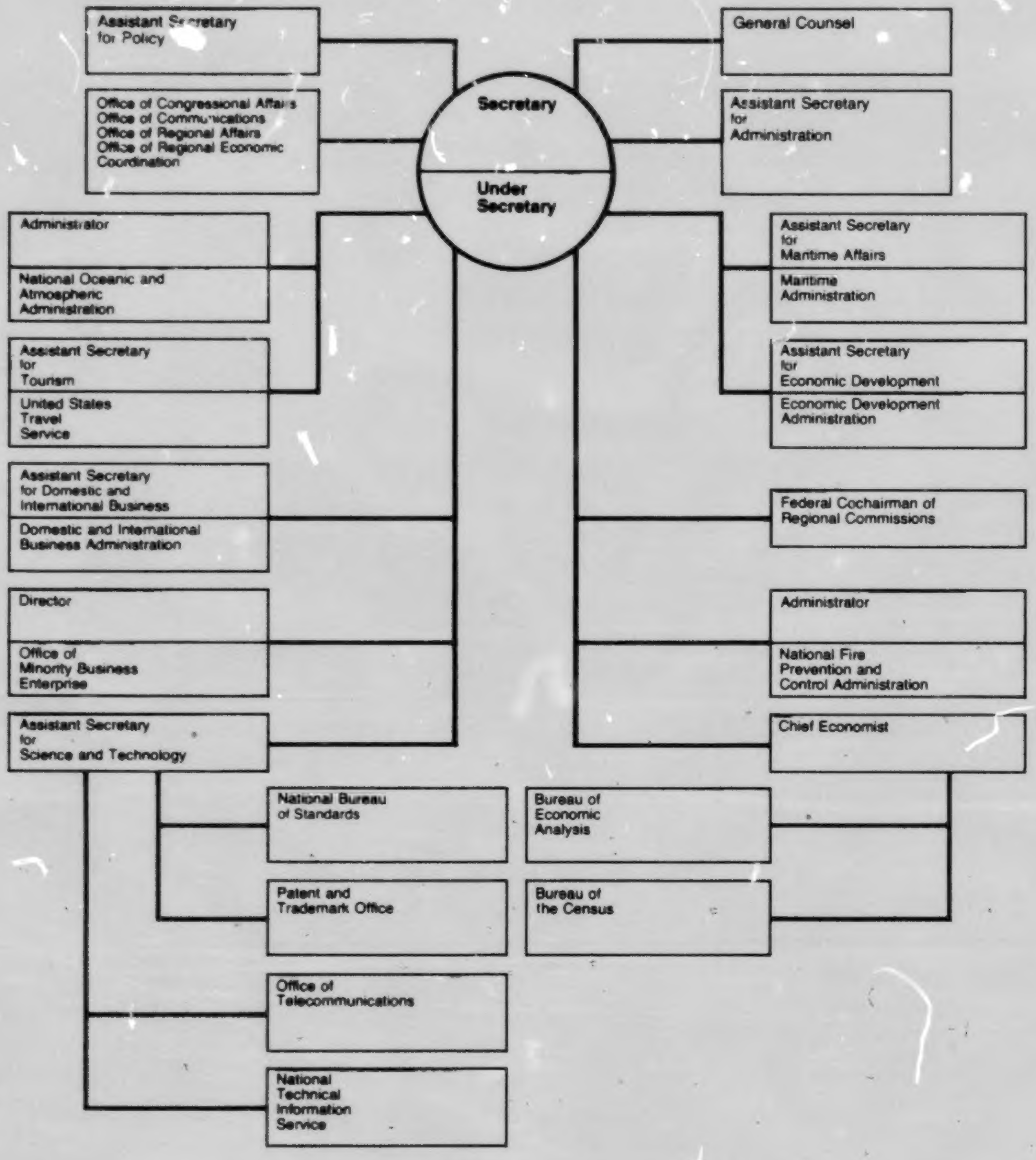
5. Department of Commerce

The Department was designated as such by the act of March 4, 1913 (37 Stat. 736; 15 U.S.C. 1501), which reorganized the Department of Commerce and Labor, created by the act of February 14, 1903 (32 Stat. 825; 15 U.S.C. 1501), by transferring all labor activities into a new, separate Department of Labor (see Figure 16).

Programs and Activities

Office of the Secretary. The Secretary is responsible for the administration of all functions and authorities assigned to the Department of Commerce and for advising the President on Federal policy and programs affecting the industrial and commercial segments of the national economy.

Figure 16. Department of Commerce


Assistant Secretary for Policy
Office of Congressional Affairs
Office of Communications
Office of Regional Affairs
Office of Regional Economic Coordination
General Counsel
Secretary
Under Secretary
Assistant Secretary for Administration
Administrator
National Oceanic and Atmospheric Administration
Assistant Secretary for Tourism
United States Travel Service
Assistant Secretary for Maritime Affairs
Maritime Administration
Assistant Secretary for Economic Development
Economic Development Administration
Assistant Secretary for Domestic and International Business
Domestic and International Business Administration
Federal Cochairman of Regional Commissions
Director
Office of Minority Business Enterprise
Administrator
National Fire Prevention and Control Administration
Assistant Secretary for Science and Technology
Chief Economist
National Bureau of Standards
Patent and Trademark Office
Office of Telecommunications
National Technical Information Service
Bureau of Economic Analysis
Bureau of the Census

Domestic and International Business Administration. The Domestic and International Business Administration (DIBA) was established on November 17, 1972, by the Secretary of Commerce. DIBA was established to promote the growth of U.S. industry and commerce, foreign and domestic; to stimulate the expansion of U.S. exports; and to prepare and execute plans for industrial mobilization readiness through government and business cooperation.

International Commerce. The Bureau of International Commerce (BIC) helps U.S. business sell its goods in international markets by providing commercial, economic, and marketing information on export prospects and methods of marketing goods, and it also provides information on prospective customers.

The Bureau conducts export development activities (involving biomedical and health-related supplies and equipment), to increase national awareness of export opportunities, improve government-business cooperation, and assist U.S. firms on specific major export projects; and manages export promotion and export expansion facilities, such as trade fairs and trade centers, to stimulate nonexporting U.S. businesses to participate in overseas markets and to enlarge sales for present exporters.

National Bureau of Standards. The National Bureau of Standards (NBS) was established by act of Congress on March 3, 1901 (31 Stat. 1449, as amended; 15 U.S.C. 271-286). The Bureau provides the basis for the Nation's measurement standards. These standards are the means through which people and nations buy and sell goods, develop products, judge the quality of their environment, and provide guidelines for the protection of health and safety. The Bureau's overall goal is to strengthen and advance the Nation's science and technology and facilitate their effective application for public benefit. NBS is involved in projects aimed at dealing with such national concerns as energy conservation and research, fire protection and prevention, consumer product safety, and public health.

Source of Information

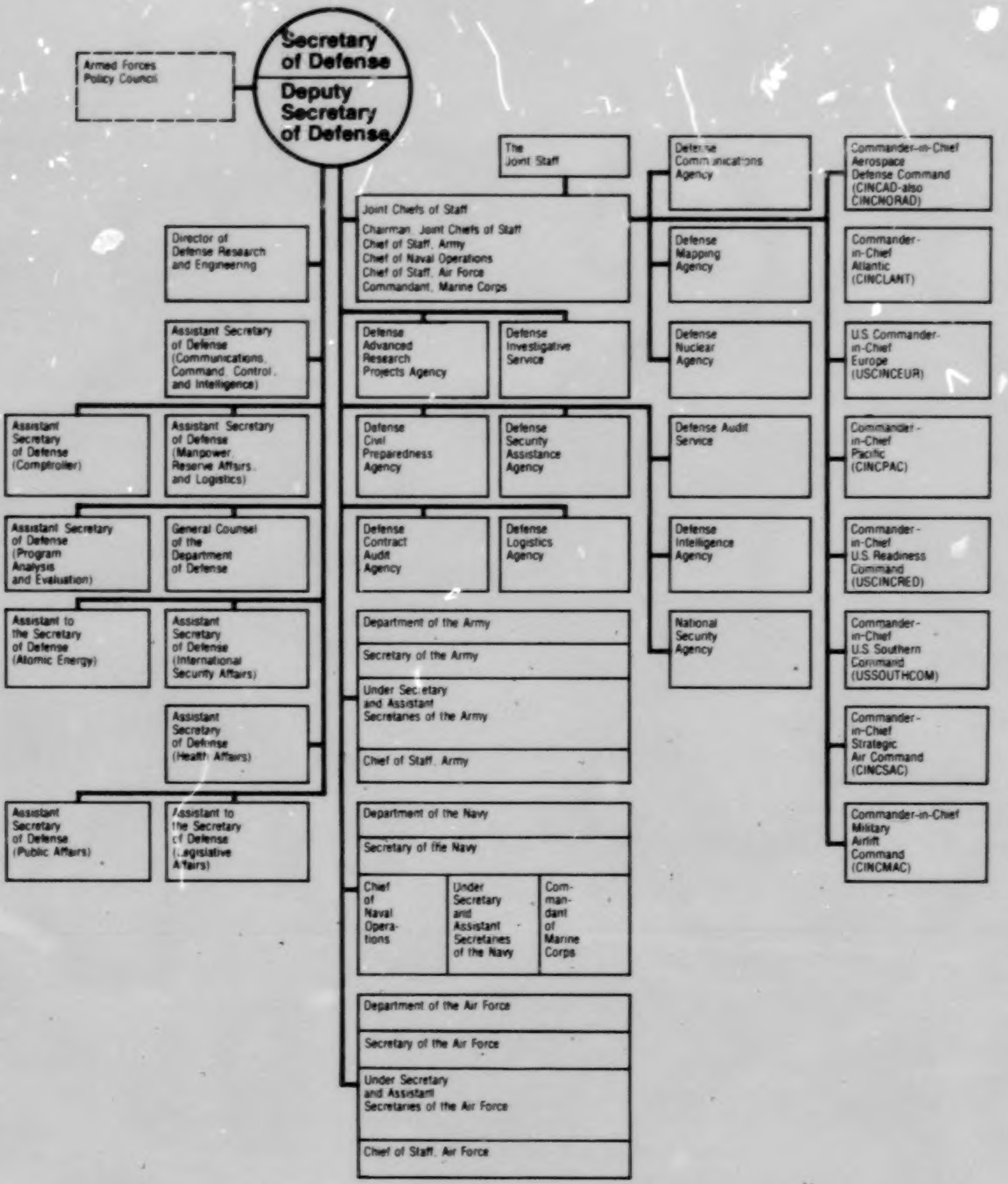
Further information may be obtained from the Bureau of International Commerce.

6. Department of Defense

The Department of Defense (DOD) operates a large health system for the benefit of military personnel and their dependents.

Overall policy and coordination are in the hands of the Assistant Secretary for Defense for Health Affairs. The Surgeons General have responsibility for their respective health services (see Figure 17).

Figure 17. Department of Defense


Secretary of Defense
Deputy Secretary of Defense
Armed Forces Policy Council
The Joint Staff
Joint Chiefs of Staff
Chairman, Joint Chiefs of Staff
Chief of Staff, Army
Chief of Naval Operations
Chief of Staff, Air Force
Commandant, Marine Corps
Director of Defense Research and Engineering
Assistant Secretary of Defense (Communications, Command, Control, and Intelligence)
Assistant Secretary of Defense (Comptroller)
Assistant Secretary of Defense (Manpower, Reserve Affairs, and Logistics)
Assistant Secretary of Defense (Program Analysis and Evaluation)
General Counsel of the Department of Defense
Assistant to the Secretary of Defense (Atomic Energy)
Assistant Secretary of Defense (International Security Affairs)
Assistant Secretary of Defense (Health Affairs)
Assistant Secretary of Defense (Public Affairs)
Assistant to the Secretary of Defense (Legislative Affairs)
Defense Advanced Research Projects Agency
Defense Investigative Service
Defense Civil Preparedness Agency
Defense Security Assistance Agency
Defense Contract Audit Agency
Defense Logistics Agency
Department of the Army
Secretary of the Army
Under Secretary and Assistant Secretaries of the Army
Chief of Staff, Army
Department of the Navy
Secretary of the Navy
Chief of Naval Operations
Under Secretary and Assistant Secretaries of the Navy
Commandant of Marine Corps
Department of the Air Force
Secretary of the Air Force
Under Secretary and Assistant Secretaries of the Air Force
Chief of Staff, Air Force
Defense Communications Agency
Defense Mapping Agency
Defense Nuclear Agency
Defense Audit Service
Defense Intelligence Agency
National Security Agency
Commander-in-Chief Aerospace Defense Command (CINCAD-also CINCNORAD)
Commander-in-Chief Atlantic (CINCLANT)
U.S. Commander-in-Chief Europe (USCINCEUR)
Commander-in-Chief Pacific (CINCPAC)
Commander-in-Chief U.S. Readiness Command (USCINCRED)
Commander-in-Chief U.S. Southern Command (USSOUTHCOM)
Commander-in-Chief Strategic Air Command (CINCSAC)
Commander-in-Chief Military Airlift Command (CINCMAC)

Programs and Activities

International health activities include the provision of care to military personnel stationed abroad and their dependents, and a program of infectious disease research as it relates to tropical medicine. DOD also engages in the health training of foreign nationals and emergency overseas disaster relief activities. The major purpose of the health training and research activities is to increase the medical research intelligence capabilities of the foreign country, as well as provide health personnel trained in field testing and drug and vaccine evaluation. DOD also maintains a Medical Intelligence Information Agency which surveys world health conditions.

Source of Information

Further data on DOD international health programs may be obtained from the Defense Health Council, Office of the Assistant Secretary for Defense Health Affairs.

7. Department of Energy

The Department of Energy has responsibility for the coordination and implementation of U.S. energy policies. This includes energy resource development and use; pricing and allocation; research and development in fossil, nuclear, fusion, solar and geothermal energy; and conservation measures.

On August 4, 1977, the Department of Energy was authorized under P.L. 91-95 (see Figure 18). This public law brought together into one cabinet department all the functions of the Federal Energy Administration, the Federal Power Commission, and the Energy Research and Development Administration; the ICC functions related to transportation of oil by pipeline; the Commerce Department functions related to industrial energy conservation; and HUD authority to set energy conservation standards for new buildings.

Programs and Activities

In the field of international health, the Department of Energy performs biomedical research on populations exposed to nuclear fallout. In FY 76 (under ERDA) this included the populations of Nagasaki, Hiroshima, and the Marshall Islands.

Source of Information

Additional information can be obtained from the Assistant Secretary for Environment and the Assistant Secretary for International Affairs.

8. Department of Health, Education, and Welfare

The Department of Health, Education, and Welfare (HEW) has general responsibility for governmental action to promote health (see Figure 19).

Figure 18. Department of Energy

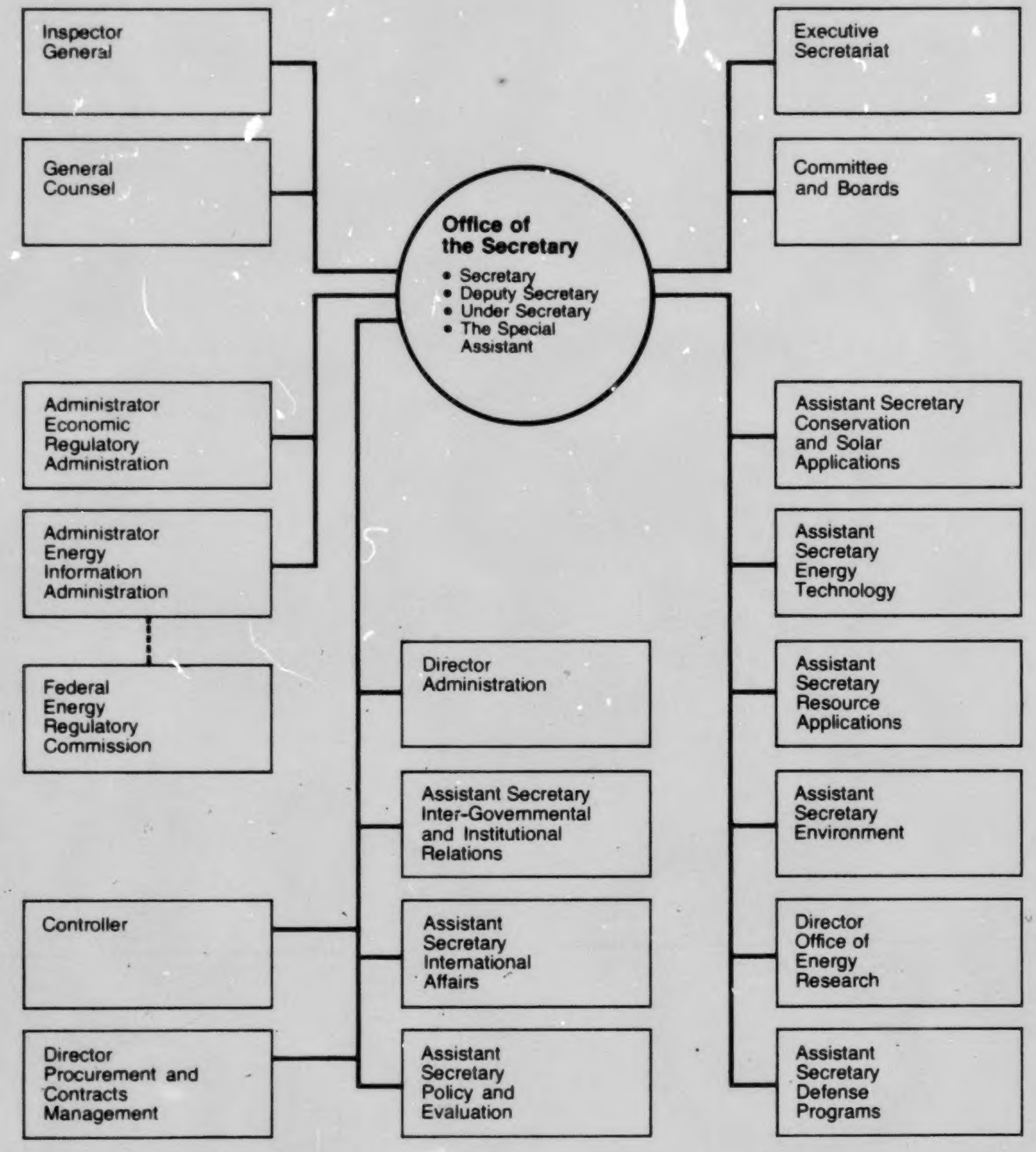
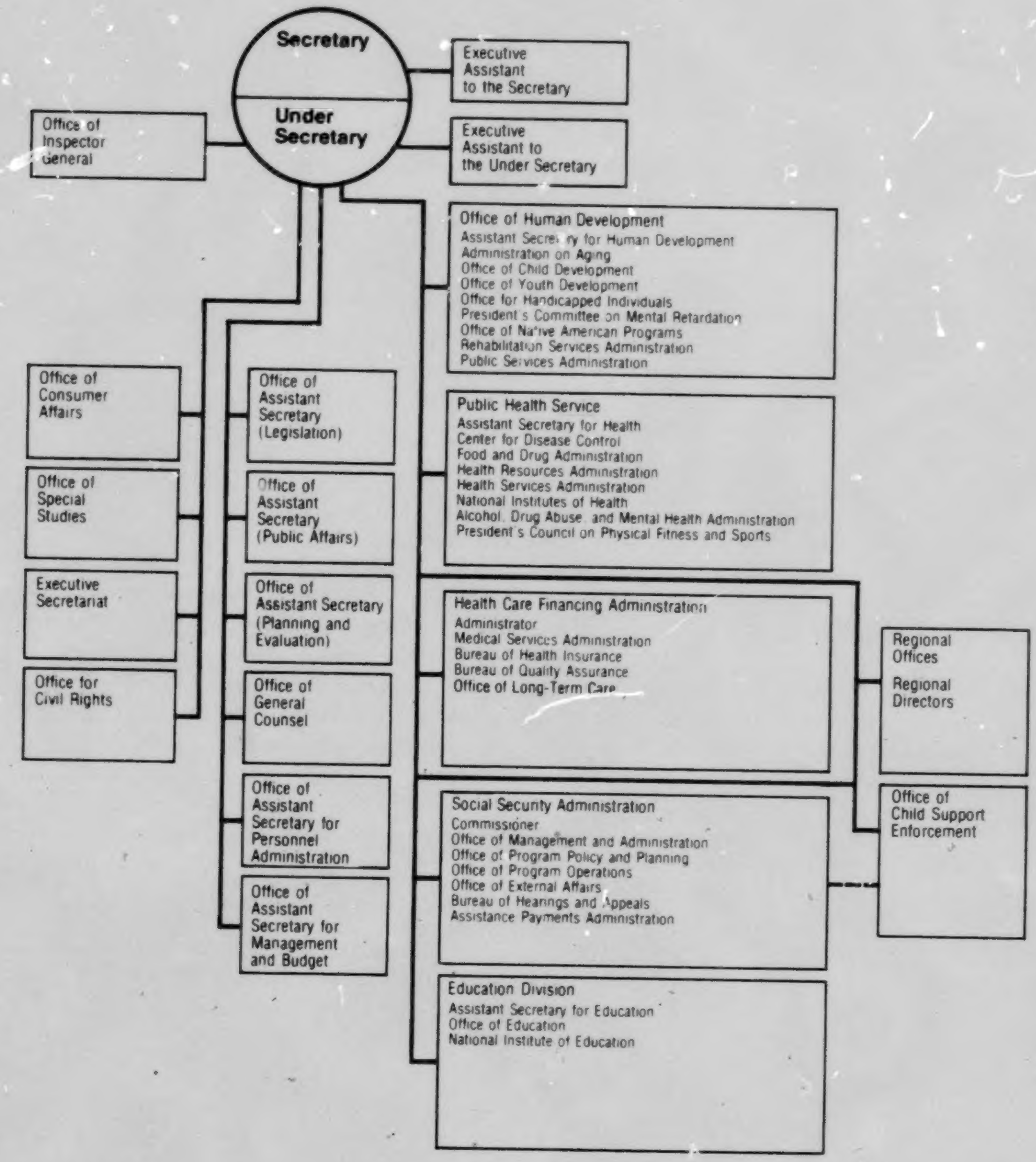

Inspector General
General Counsel
Executive Secretariat
Committee and Boards
Office of the Secretary
• Secretary
• Deputy Secretary
• Under Secretary
• The Special Assistant
Administrator Economic Regulatory Administration
Administrator Energy Information Administration
Federal Energy Regulatory Commission
Assistant Secretary Conservation and Solar Applications
Assistant Secretary Energy Technology
Assistant Secretary Resource Applications
Assistant Secretary Environment
Director Office of Energy Research
Assistant Secretary Defense Programs
Director Administration
Assistant Secretary Inter-Governmental and Institutional Relations
Assistant Secretary International Affairs
Assistant Secretary Policy and Evaluation
Controller
Director Procurement and Contracts Management

Figure 19. Department of Health, Education, and Welfare


Secretary
Under Secretary
Executive Assistant to the Secretary
Executive Assistant to the Under Secretary
Office of Inspector General
Office of Human Development
Assistant Secretary for Human Development
Administration on Aging
Office of Child Development
Office of Youth Development
Office for Handicapped Individuals
President's Committee on Mental Retardation
Office of Native American Programs
Rehabilitation Services Administration
Public Services Administration
Office of Consumer Affairs
Office of Special Studies
Executive Secretariat
Office for Civil Rights
Office of Assistant Secretary (Legislation)
Office of Assistant Secretary (Public Affairs)
Office of Assistant Secretary (Planning and Evaluation)
Office of General Counsel
Office of Assistant Secretary for Personnel Administration
Office of Assistant Secretary for Management and Budget
Public Health Service
Assistant Secretary for Health
Center for Disease Control
Food and Drug Administration
Health Resources Administration
Health Services Administration
National Institutes of Health
Alcohol, Drug Abuse, and Mental Health Administration
President's Council on Physical Fitness and Sports
Health Care Financing Administration
Administrator
Medical Services Administration
Bureau of Health Insurance
Bureau of Quality Assurance
Office of Long-Term Care
Regional Offices
Regional Directors
Office of Child Support Enforcement
Social Security Administration
Commissioner
Office of Management and Administration
Office of Program Policy and Planning
Office of Program Operations
Office of External Affairs
Bureau of Hearings and Appeals
Assistance Payments Administration
Education Division
Assistant Secretary for Education
Office of Education
National Institute of Education

Programs and Activities

Public Health Service. The Public Health Service (PHS) has its origin in an act of July 16, 1978 (ch. 77, 1 Stat. 605), authorizing marine hospitals for the care of American merchant seamen. Subsequent legislation has vastly broadened the scope of its activities. The PHS Act of July 1, 1944 (58 Stat. 682; 42 U.S.C. 201) consolidated and revised substantially all existing legislation relating to PHS. The basic PHS legal responsibilities have been broadened and expanded many times since 1944. Major organizational transfers have included vital statistics (1946), health services for the American Indians and Alaska Natives (1955), the National Library of Medicine (1956), and the Food and Drug Administration (1968).

Other important functions added after the original act include expanding grants to States for health services, providing financial assistance to health professions educational institutions, and conducting national health surveys. In addition, HEW supplies grants to State and local agencies for comprehensive health planning and funds for research in improving the delivery of health services.

PHS is the Federal agency charged by law to promote and ensure the highest level of health attainable for every individual and family in America and to develop cooperation in health projects with other nations. The major functions of PHS are: to stimulate and assist States and communities with the development of local health resources and to further development of education for the health professions; to assist with improvement of the delivery of health services to all Americans; to conduct and support research in the medical and related sciences and to disseminate scientific information; to protect the health of the U.S. population against impure and unsafe foods, drugs, and cosmetics, and against other potential hazards; and to provide national leadership for the prevention and control of communicable disease and other public health functions.

PHS consists of six operating agencies, with the Assistant Secretary for Health exercising direct line authority over these health agencies. Also under the Assistant Secretary for Health is a staff office known as the Office of International Health (OIH). This office is responsible for international health policy and program coordination. Activities of OIH in FY 1976 included the administration of bilateral scientific agreements, integration of domestic and international activities, administration of the Special Foreign Currency Program, and sponsorship of the International Health Representative Committee. OIH also provides technical assistance in health planning and develops geographic health studies.

The six operating agencies of PHS include:

- **Alcohol, Drug Abuse, and Mental Health Administration** – The mission of the Alcohol, Drug Abuse, and Mental Health Administration (ADAMHA) is to provide leadership in the Federal effort to reduce and eliminate, where possible, health problems caused in the United States by the abuse of alcohol and drugs, and to generally improve the mental health of the people of the United States. ADAMHA has three major components: the National Institute on Alcohol Abuse and Alcoholism, the National Institute on Drug Abuse, and the National Institute of Mental Health. ADAMHA undertakes various international research activities, including research on mental illness and drug abuse prevention and control;

- **Center for Disease Control** – The Center for Disease Control (CDC) was established as an operating health agency within the Public Health Service by the Secretary of Health, Education, and Welfare on July 1, 1973. It is the Federal agency charged with protecting the public health of this country by providing leadership and direction in the prevention and control of diseases. It comprises eight major operating components: National Institute of Occupational Safety and Health, Bureau of Epidemiology, Bureau of Health Education, Bureau of Laboratories, Bureau of Smallpox Eradication, Bureau of State Services, Bureau of Training, and Bureau of Tropical Diseases.

CDC administers national programs for the prevention and control of communicable and vector-borne diseases and other conditions, such as childhood lead-based paint poisoning and urban rat spread. CDC directs and enforces foreign quarantine activities and regulations; provides consultation and assistance in upgrading the performance of clinical laboratories; evaluates and licenses clinical laboratories engaged in interstate commerce; and administers a nationwide program of research, information, and education in the field of smoking and health.

To ensure safe and healthful working conditions for all working people, occupational safety and health standards are developed, and research and other activities are carried out through the CDC's National Institute for Occupational Safety and Health.

The Center also provides consultation to other nations in the control of preventable diseases, and participates with national and international agencies in the eradication or control of communicable diseases and other preventable conditions;

- **Food and Drug Administration** – The name "Food and Drug Administration" (FDA) was first provided by the Agriculture Appropriation Act of 1931, approved May 27, 1930 (46 Stat. 392), although similar law-enforcement functions had been carried on under different organizational titles since January 1, 1907, when the Food and Drug Act of 1905 (34 Stat. 768; 21 U.S.C. 1-15) became effective.

FDA activities are directed toward protecting the health of the nation against impure and unsafe foods, drugs, and cosmetics, and against other potential hazards.

FDA organization includes the Bureaus of Biologics, Drugs, Foods, Radiological Health, Veterinary Medicine, Medical Devices and Diagnostic Products, and Toxicological Research. While international research and establishment of international standards for food and drug safety are part of the overall responsibility of FDA, the most important international responsibilities in terms of manpower and budget are assurance of quality standards in imported and exported food and pharmaceuticals. To support these regulatory responsibilities, FDA inspects foreign companies. FDA also serves as an international source for information on food and drug standards;

- **Health Resources Administration** – The mission of the Health Resources Administration (HRA) is to provide leadership related to requirements for and distribution of health resources including manpower training. HRA has international health responsibilities primarily in the area of research training. The purpose of this activity is to increase the availability of health manpower worldwide. The training serves to strengthen the country's health, demographic, and population data bases. Major components of HRA include:

– **Bureau of Health Manpower**. The Bureau of Health Manpower plans, develops, and administers programs in planning, coordinating, evaluating, and supporting the development and utilization of the nation's health manpower. Its programs are designed to strengthen State and local health manpower capacities as well as to devise new approaches to health manpower development and use.

The Bureau deals with questions of foreign medical graduates and with health resources issues;

– **Bureau of Health Planning and Resources Development**. The Bureau of Health Planning and Resources Development provides leadership and administration of a program of Federal, State, and areawide health planning and health delivery systems development through grants, contracts, loans, and loan guarantees;

– **National Center for Health Services Research**. The National Center for Health Services Research (NCHSR) plans, develops, and administers a program of health services research, demonstration, evaluation, and research training. Studies, demonstrations, and related grant and contract-supported activities cover financing, organization, quality, and utilization of health services. The Center makes grants and contracts to health service providers, conducts and coordinates health services research within the Public Health Service, disseminates research findings, and provides technical assistance to other Federal programs and health service providers;

– **National Center for Health Statistics**. The National Center for Health Statistics (NCHS) collects, analyzes, and disseminates health statistics on vital events and health activities to reflect the health status of people, health needs, and health resources; stimulates and conducts basic and applied research in health data systems and statistical methodology; administers the Cooperative Health Statistics System; and fosters research, consultation, and training programs in international statistical activities;

- **Health Services Administration** – The mission of the Health Services Administration (HSA) is to provide professional leadership in the delivery of health services. In the international arena the major activity is health services research. Health research of HSA is initiated to increase the development of a health services delivery capacity as well as improve the effectiveness of the existing delivery system. Major components of HSA include:

  – **Bureau of Community Health Services.** The Bureau of Community Health Services has been established to help communities find the best ways of meeting their health needs. The Bureau's role is to serve as a national focus for improving the organization and delivery of health care by initiating activities which provide alternatives in health service delivery; and administering programs which support health services to specific population groups, including mothers and children, and migrant workers, and their families, who lack adequate health care services. Ensuring the effective relationship of the delivery of quality health care with health services financing resources is a high priority concern.

  The Bureau of Community Health Services is responsible for the management of several health care programs including Maternal and Child Health, Community Health Centers, Migrant Health, Family Planning, and the National Health Service Corps. Primary concerns are the development of health service delivery capacity for medically underserved areas and population groups and the improvement and expansion of State or local systems of health care for mothers, children, and adolescents. Management emphasis is placed upon the coordination and integration of grant and other resources to meet community needs for primary health care.

  A primary health care program has supported the initiation of several hundred ambulatory health services activities, particularly in rural areas. Resources from Community Health Centers, Migrant Health, National Health Service Corps, and other programs have been allocated to communities in a unified way with the intent of adequately meeting area needs and of simplifying project administration for grantees.

  Concurrent with the primary care effort, a strategy for improvement of child health has been devised. The major objective of the strategy is the development and improvement of child health systems throughout every State. Emphasis is placed on creation of working relationships among all providers of health services in order to help ensure the delivery of the kinds and specializations of care required to foster maternal and child health;

– **Indian Health Service**. The Indian Health Service operates a program of comprehensive health services for eligible American Indians and Alaska natives, provides hospital and medical care services and preventive and rehabilitative health services; develops innovative health services delivery systems; conducts tuberculosis and other communicable disease control activities; promotes self-determination of Indian people through community development and participation in program administration; encourages and assists in the development of water supply and waste disposal systems; and provides training for health personnel;

– **Bureau of Medical Services**. The Bureau of Medical Services carries out programs to provide comprehensive medical care for designated Federal beneficiaries and occupational health care and safety services for Federal employees; and it assists in the development, improvement, expansion, and integration of emergency medical services systems. The Bureau also fosters the development of organized systems of prepaid health care to voluntarily enrolled populations through its health maintenance organization program. In addition, the Bureau of Medical Services provides Coast Guard health services;

- **National Institutes of Health**. The mission of the National Institutes of Health (NIH) is to improve the health of the American people. To carry out its goal, NIH conducts and supports biomedical research into the causes, prevention, and cure of diseases; supports research training and the development of research resources; and makes use of modern methods to communicate biomedical information. NIH activities are carried out to improve research capabilities, health research training, disease prevention control, and treatment capabilities in foreign countries. NIH fosters the dissemination of biomedical and environmental knowledge worldwide through its activities. Additionally, the incidence of disease worldwide is affected by these activities. Each of the NIH institutes engages in international health activities relevant to its particular expertise. Major components of NIH are:

– **National Cancer Institute**. Research on cancer is a high-priority program within the National Cancer Institute (NCI) as a result of the National Cancer Act, which made the conquest of cancer a national goal. NCI developed a National Cancer Program to expand existing scientific knowledge on cancer cause and prevention as well as on the diagnosis, treatment, and rehabilitation of cancer patients;

– **National Eye Institute**. The National Eye Institute (NEI) conducts and supports fundamental studies on the eye and visual system, and on the causes, prevention, diagnosis, and treatment of visual disorders;

– **National Heart, Lung, and Blood Institute**. The National Heart, Lung, and Blood Institute (NHLBI) provides leadership for a national program concerning diseases of the heart, blood vessels, blood, and lungs, and in the use of blood and the management of blood resources;

– **National Institute of Allergy and Infectious Diseases.** The National Institute of Allergy and Infectious Diseases (NIAID) conducts and supports broadly based research and research training on the causes, characteristics, prevention, control, and treatment of a wide variety of diseases believed to be attributable to infectious agents (including bacteria, viruses, and parasites), to allergies, or to other deficiencies or disorders in the responses of the body's immune mechanisms. Among areas of special emphasis are: asthma and allergic disease, clinical immunology, including organ transplantation, venereal diseases, hepatitis, influenza, and other viral respiratory infections, research and development of disease control measures, antiviral substances, and hospital-associated infections;

– **National Institute of Arthritis, Metabolism, and Digestive Diseases.** The National Institute of Arthritis, Metabolism, and Digestive Diseases (NIAMDD) conducts, fosters, and supports basic and clinical research into the causes, prevention, diagnosis, and treatment of the various arthritic, metabolic, and digestive diseases;

–**National Institute of Child Health and Human Development.** The National Institute of Child Health and Human Development (NICHD) conducts and supports biomedical and behavioral research on child health and maternal health; on problems of human development, with special reference to mental retardation; and on family structure, the dynamics of human population, and the reproductive process;

– **National Institute of Dental Research.** The National Institute of Dental Research (NIDR) supports and conducts clinical and laboratory research directed toward the ultimate eradication of tooth decay and of a broad array of oral-facial disorders;

– **National Institute of Environmental Health Sciences.** The National Institute of Environmental Health Sciences (NIEHS) conducts and supports fundamental research concerned with defining, measuring, and understanding the effects of chemical, biological, and physical factors in the environment on the health and well-being of man;

– **National Institute of General Medical Sciences.** The emphasis of the National Institute of General Medical Sciences (NIGMS) is for support of research and research training in the basic biomedical sciences. The activities range from cell biology to genetics to pharmacology and systemic response to trauma and anesthesia;

– **National Institute of Neurological and Communicative Diseases and Stroke.** The National Institute of Neurological and Communicative Diseases and Stroke (NINCDS) conducts and supports fundamental and applied research on human neurological and communicative disorders. NINCDS also conducts and supports research on the development and function of the normal brain and nervous system;

- **National Institute on Aging**. The National Institute on Aging (NIA) conducts and supports biomedical and behavioral research to increase the knowledge of the aging process and associated physical, psychological, and social factors resulting from advanced age;

- **Fogarty International Center**. The Fogarty International Center (FIC) promotes discussion, study, and research on the development of science internationally as it relates to health and administers a number of international programs for advanced study in the health sciences;

- **Clinical Center**. The Clinical Center is designed to bring scientists working in the Center's laboratories into close proximity with clinicians caring for patients, so that they may collaborate on problems of mutual concern. The research institutes select patients, referred to NIH by physicians throughout the United States and overseas, for clinical studies of specific diseases and disorders. A certain percent of the patients are "normal volunteers," healthy persons who provide an index of normal body functions against which to measure the abnormal. Normal volunteers come under varied sponsorship, such as colleges, civic groups, and religious organizations;

- **National Library of Medicine**. The National Library of Medicine (NLM) serves as the Nation's chief medical information source. NLM is authorized to provide medical library services and on-line bibliographic searching capabilities, such as MEDLINE, TOXLINE, etc., to public and private agencies and organizations, institutions, and individuals. It is responsible for the development and management of a biomedical communications network, applying advanced technology to the improvement of biomedical communications; and it operates a computer-based toxicology information system for the scientific community, industry, and other Federal agencies.

- **Health Care Financing Administration**. The Health Care Financing Administration (HCFA) was created by the Secretary's reorganization of March 8, 1977, as a principal operating component of HEW. HCFA places under one administration the oversight of the Medicare and Medicaid programs and related Federal medical care quality control staffs. The following major programs will be directed by HCFA: Medicare, Medicaid, Quality Assurance, Long-Term Care.

Sources of Information

The following publications can provide other information on HEW activities in international health:

- National Institutes of Health (Fogarty International Center):

  - NIH Annual Report of International Activities, Fiscal Year 1976 (Produced annually);

– NIH International Awards for Biomedical Research and Research Training, Fiscal Year 1976 (Produced annually);

- Food and Drug Administration: FDA Annual Report, 1975 (Produced annually);
- Public Health Service: 1973-74 Report to the Congress from the Public Health Service.

The following offices in the Public Health Service can be contacted for specific program information:

- Office of the Assistant Secretary for Health, Office of International Health;
- National Institutes of Health, Fogarty International Center;
- Health Services Administration;
- Health Resources Administration;
- Center for Disease Control.

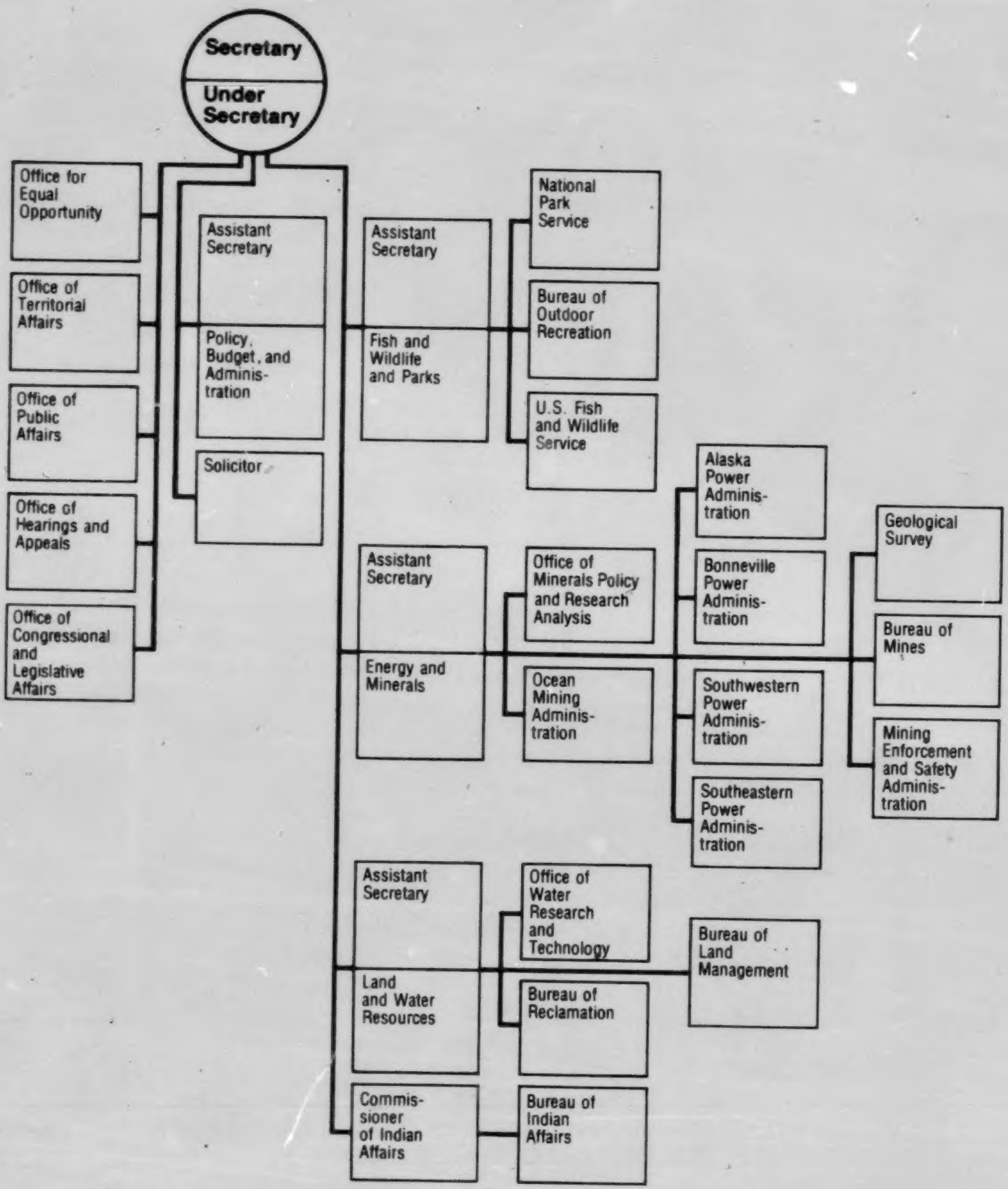
9. Department of the Interior

As the principal U.S. conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of land and water resources, protecting fish and wildlife, preserving the environmental and cultural values of national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses U.S. energy and mineral resources and works to assure that their development is in the best interests of the entire population. The Department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

The Department of the Interior was created by an act of Congress on March 3, 1849 (9 Stat. 395; 43 U.S.C. 1451) (see Figure 20).

The jurisdiction of the Department of the Interior includes administration of over 500 million acres of Federal land, and trust responsibilities for approximately 50 million acres of land, mostly Indian reservations; conservation and development of mineral and water resources; promotion of mine safety and efficiency; conservation, development, and utilization of fish and wildlife resources; coordination of Federal and State recreation programs; preservation and administration of this country's scenic and historic areas; operation of Job Corps Conservation Centers and Youth Conservation Corps Camps, as well as coordination of other manpower and youth training programs; reclamation of arid lands in the West through irrigation; and management of hydroelectric power systems. The Department of the Interior is

Figure 20. Department of the Interior


Secretary
Under Secretary
Office for Equal Opportunity
Office of Territorial Affairs
Office of Public Affairs
Office of Hearings and Appeals
Office of Congressional and Legislative Affairs
Assistant Secretary
Policy, Budget, and Administration
Solicitor
Assistant Secretary
Fish and Wildlife and Parks
National Park Service
Bureau of Outdoor Recreation
U.S. Fish and Wildlife Service
Assistant Secretary
Energy and Minerals
Office of Minerals Policy and Research Analysis
Ocean Mining Administration
Alaska Power Administration
Bonneville Power Administration
Southwestern Power Administration
Southeastern Power Administration
Geological Survey
Bureau of Mines
Mining Enforcement and Safety Administration
Assistant Secretary
Land and Water Resources
Office of Water Research and Technology
Bureau of Reclamation
Bureau of Land Management
Commissioner of Indian Affairs
Bureau of Indian Affairs

also concerned with social and economic development of U.S. territories and of the trust territory of the Pacific Islands. During FY 1976, for example, in American Samoa and the trust territories of the Pacific, the Department of the Interior performed the following health activities: manpower training, hospital renovation, medical service organization, and disease prevention and control.

Guam, American Samoa, and the Virgin Islands are not foreign areas but are territories of the United States and come under the general administration of the Secretary of the Interior. The trust territory of the Pacific Islands, sometimes referred to as Micronesia, is administered by the United States (Department of the Interior) in accordance with a 1947 Trusteeship Agreement with the Security Council of the United Nations. The territories of Guam, American Samoa, and the Virgin Islands are not international entities although all four territories receive some assistance both from the U.S. Government and from international organizations such as the World Health Organization.

Source of Information

The Office of Territorial Affairs within the Department should be contacted for specific program information on international health activities.

10. Department of Labor

The purpose of the Department of Labor is to foster, promote, and protect the welfare of the wage earners of the United States, by improving their working conditions and advancing their opportunities for profitable employment. In carrying out its mission, the Department administers more than 130 Federal labor laws guaranteeing workers' rights to safe and healthful working conditions, a minimum hourly wage and overtime pay, freedom from employment discrimination, unemployment insurance, and workers' compensation. The Department also protects workers' pension rights; sponsors job training programs; helps workers find jobs; works to strengthen free collective bargaining; and keeps track of changes in employment, prices, and other national economic measurements.

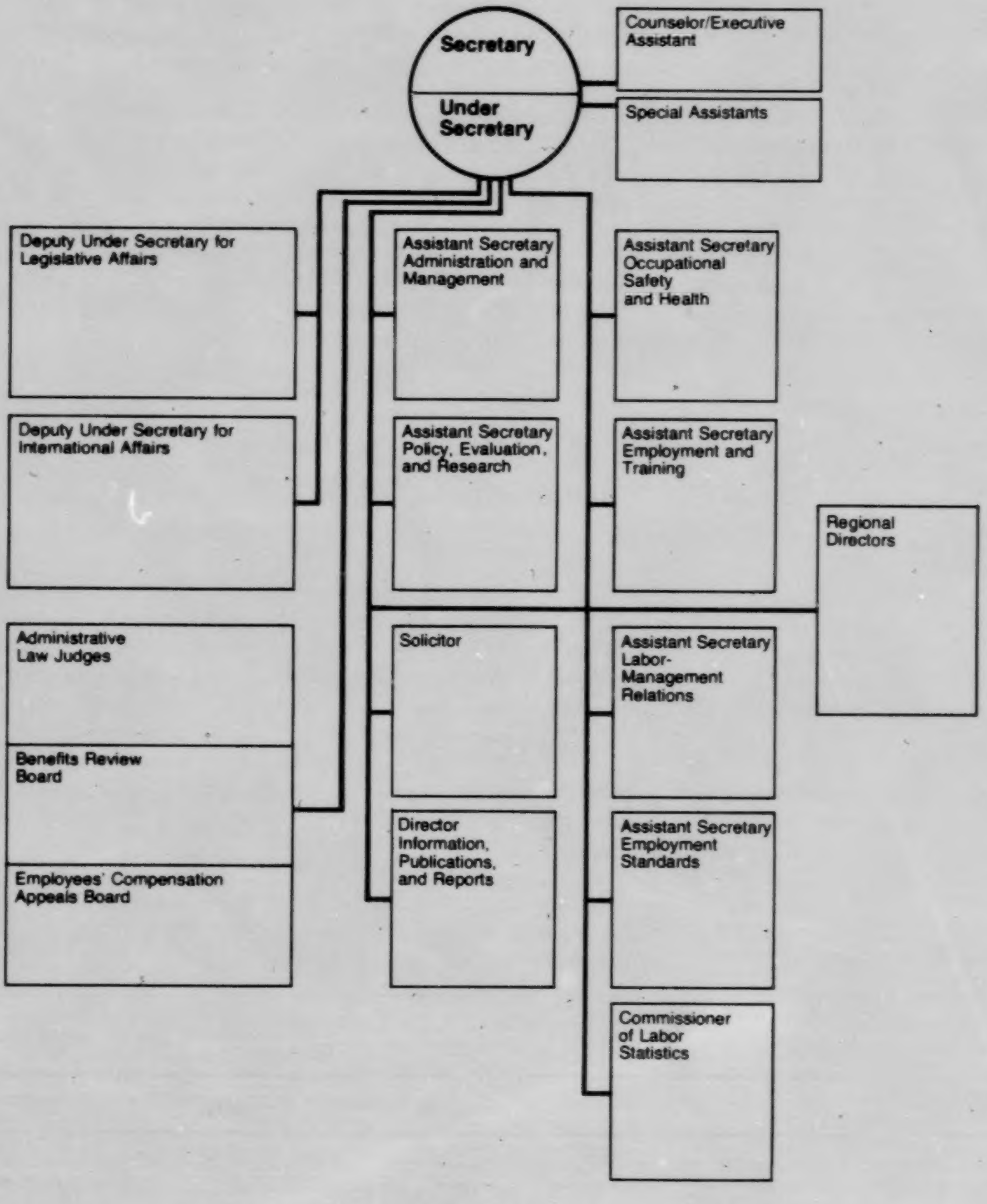
The Department of Labor was created by an act of Congress approved March 4, 1913 (37 Stat. 736; 5 U.S.C. 611) (see Figure 21).

Programs and Activities

Office of the Secretary of Labor. The Secretary is the head of the Department of Labor and the principal adviser to the President on the development and execution of policies and the administration and enforcement of laws relating to wage earners, their working conditions, and their employment opportunities.

International Affairs. The Department's international responsibilities are carried out under the direction of the Deputy Under Secretary for International Affairs and

Figure 21. Department of Labor


Secretary
Under Secretary
Counselor/Executive Assistant
Special Assistants
Deputy Under Secretary for Legislative Affairs
Deputy Under Secretary for International Affairs
Administrative Law Judges
Benefits Review Board
Employees' Compensation Appeals Board
Assistant Secretary Administration and Management
Assistant Secretary Policy, Evaluation, and Research
Solicitor
Director Information, Publications, and Reports
Assistant Secretary Occupational Safety and Health
Assistant Secretary Employment and Training
Assistant Secretary Labor-Management Relations
Assistant Secretary Employment Standards
Commissioner of Labor Statistics
Regional Directors

the Bureau of International Labor Affairs which he/she supervises. The Bureau assists in formulating international economic and trade policies affecting American workers. It also administers the trade adjustment assistance program under the Trade Act of 1974, which provides special benefits for workers adversely affected by import competition.

The Bureau also helps represent the United States in multilateral and bilateral trade negotiations and on such international bodies as the General Agreement on Tariffs and Trade (GATT), the International Labor Organization (ILO), and the Organization for Economic Cooperation and Development (OECD). The Bureau carries out overseas technical assistance projects and arranges trade union exchange and other programs for foreign visitors to the United States. During FY 1976, in line with these responsibilities, the Department carried out seminars on various occupational health and safety topics in foreign countries. Primarily, the purpose of these activities was to increase the awareness of prevention and control measures in this area.

Source of Information

The Bureau of International Labor Affairs should be contacted for additional information on Department of Labor international health activities.

11. Department of State

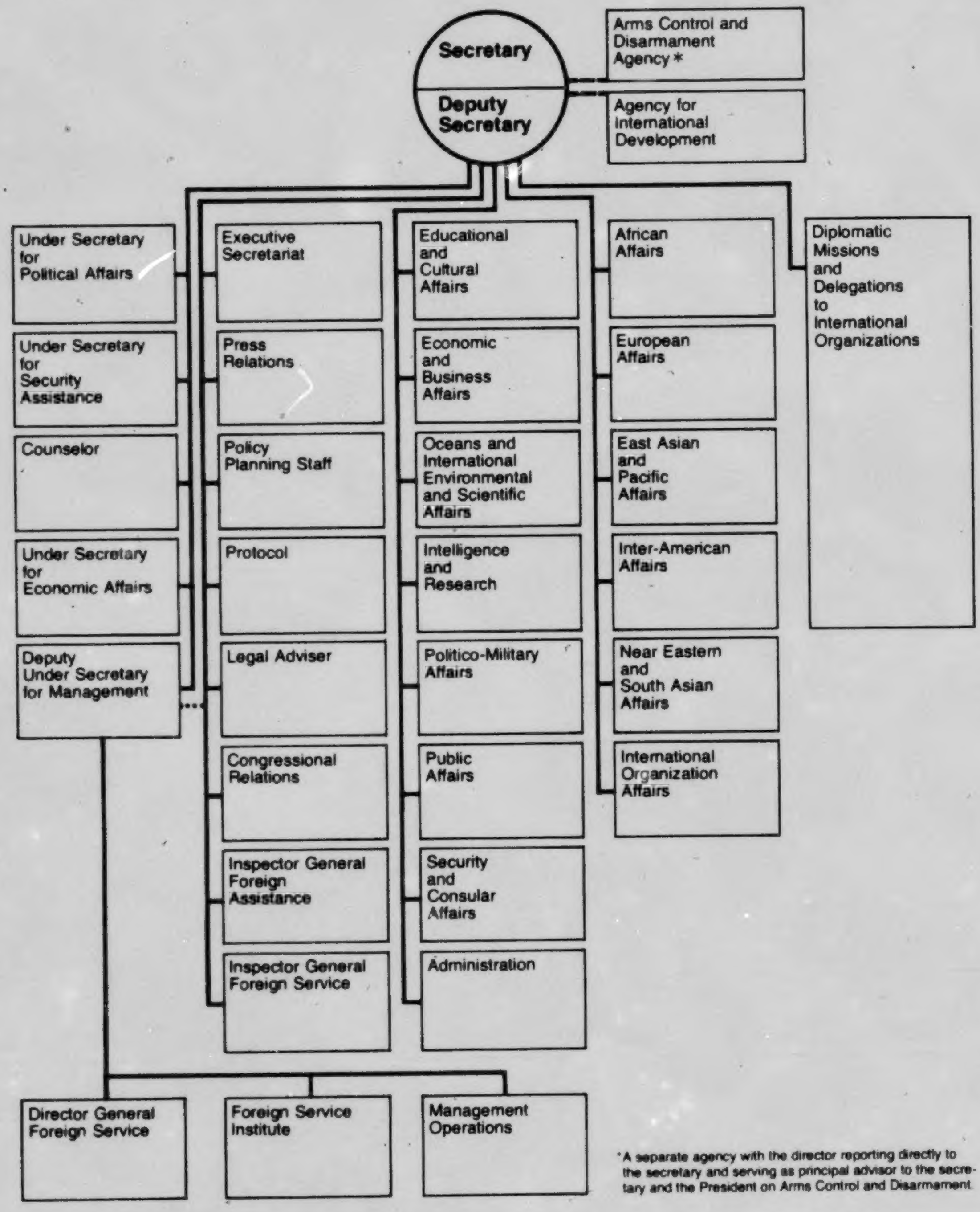
The primary objective of the Department of State (see Figure 22) in the execution of foreign policy is to promote the long-range security and well-being of the United States. The Department determines and analyzes the facts relating to our overseas interests, makes recommendations on policy and future action, and takes the necessary steps to carry out established policy. The Secretary of State, the principal foreign policy adviser to the President, is responsible for the overall direction, coordination, and supervision of U.S. foreign relations and for the interdepartmental activities of the U.S. Government overseas.

Initially the foreign affairs of the United States were conducted by the Continental Congress. The Congress established a foreign service and a means by which the United States could conduct its limited international relations in 1775. On January 10, 1781, a separate Department of Foreign Affairs was established.

Programs and Activities

The Department engages in continuous consultations with other states, negotiates treaties and agreements with foreign nations, speaks for the United States in the United Nations and in more than 50 major international organizations (including health organizations) in which the United States participates, and represents the United States at more than 800 international conferences annually. Through the

Figure 22. Department of State


Secretary
Deputy Secretary
Arms Control and Disarmament Agency *
Agency for International Development
Under Secretary for Political Affairs
Under Secretary for Security Assistance
Counselor
Under Secretary for Economic Affairs
Deputy Under Secretary for Management
Executive Secretariat
Press Relations
Policy Planning Staff
Protocol
Legal Adviser
Congressional Relations
Inspector General Foreign Assistance
Inspector General Foreign Service
Educational and Cultural Affairs
Economic and Business Affairs
Oceans and International Environmental and Scientific Affairs
Intelligence and Research
Politico-Military Affairs
Public Affairs
Security and Consular Affairs
Administration
African Affairs
European Affairs
East Asian and Pacific Affairs
Inter-American Affairs
Near Eastern and South Asian Affairs
International Organization Affairs
Diplomatic Missions and Delegations to International Organizations
Director General Foreign Service
Foreign Service Institute
Management Operations

*A separate agency with the director reporting directly to the secretary and serving as principal advisor to the secretary and the President on Arms Control and Disarmament.

Department, the United States provides funds to the following multilateral organizations involved in health: World Health Organization; Pan American Health Organization; United Nations Relief and Works Agency; United Nations Development Program; United Nations Fund for Drug Abuse Control; United Nations Environment Program; International Agency for Research on Cancer; United Nations Volunteers Program; Organization for Economic Cooperation and Development; United Nations Educational, Scientific, and Cultural Organization; United Nations Children's Fund; Food and Agriculture Organization; and United Nations Fund for Population Activities. The Department also provides cultural and educational exchange opportunities for foreign nationals in health and other areas.

Source of Information

The Under Secretary's Office of Security Assistance can be contacted for detailed program information.

12. Department of the Treasury

The Department of the Treasury performs four basic functions: formulating and recommending financial, tax, and fiscal policies; serving as financial agent for the U.S. Government; enforcing law; and manufacturing coins and currency.

The Treasury Department was created by an act of Congress approved September 2, 1789 (1 Stat. 65; 31 U.S.C. 1001) (see Figure 23).

Programs and Activities

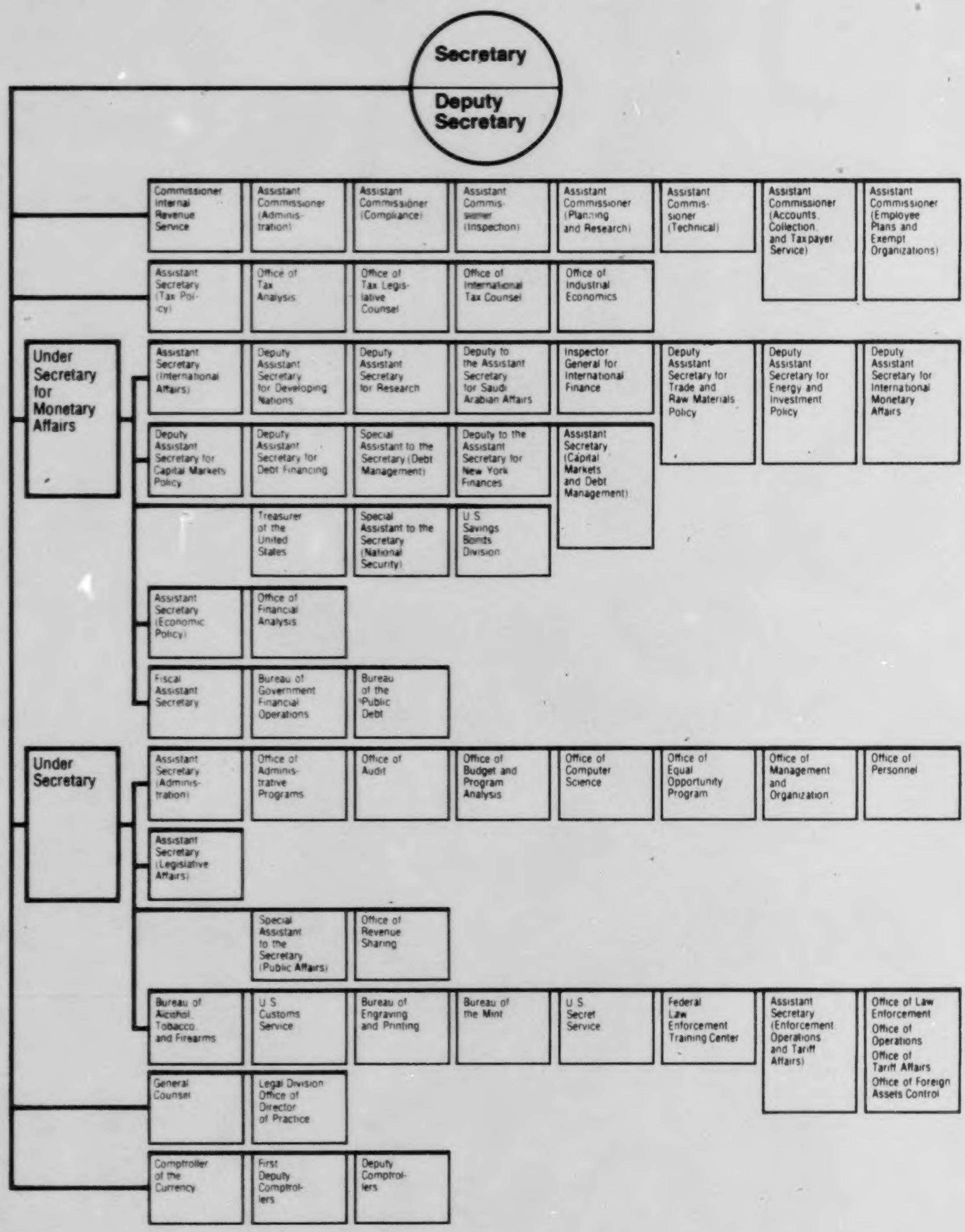
Office of the Secretary. As a major policy adviser to the President, the Secretary has primary responsibility for formulating and recommending domestic and international financial policy and tax policy, participating in the formulation of broad fiscal policies that have general significance for the economy, and managing the public debt.

In addition, the Secretary has many responsibilities stemming from his position as chief financial officer of the Government. He serves as U.S. Governor of the International Monetary Fund, the International Bank of Reconstruction and Development (IBRD), the Inter-American Development Bank (IDB), the Asian Development Bank (ADB), and the African Development Fund (AFDF).

International Affairs. The Office of the Assistant Secretary (International Affairs) advises and assists the Secretary and Under Secretary for Monetary Affairs in the formulation and execution of international financial, economic, monetary, commercial, energy, and trade policies and programs.

These functions are performed in supporting staff offices which conduct financial diplomacy with industrial and developing nations and regions; work toward

Figure 23. Department of the Treasury


Secretary
Deputy Secretary
Commissioner Internal Revenue Service
Assistant Commissioner (Administration)
Assistant Commissioner (Compliance)
Assistant Commissioner (Inspection)
Assistant Commissioner (Planning and Research)
Assistant Commissioner (Technical)
Assistant Commissioner (Accounts, Collection and Taxpayer Service)
Assistant Commissioner (Employee Plans and Exempt Organizations)
Assistant Secretary (Tax Policy)
Office of Tax Analysis
Office of Tax Legislative Counsel
Office of International Tax Counsel
Office of Industrial Economics
Under Secretary for Monetary Affairs
Assistant Secretary (International Affairs)
Deputy Assistant Secretary for Developing Nations
Deputy Assistant Secretary for Research
Deputy to the Assistant Secretary for Saudi Arabian Affairs
Inspector General for International Finance
Deputy Assistant Secretary for Trade and Raw Materials Policy
Deputy Assistant Secretary for Energy and Investment Policy
Deputy Assistant Secretary for International Monetary Affairs
Deputy Assistant Secretary for Capital Markets Policy
Deputy Assistant Secretary for Debt Financing
Special Assistant to the Secretary (Debt Management)
Deputy to the Assistant Secretary for New York Finances
Assistant Secretary (Capital Markets and Debt Management)
Treasurer of the United States
Special Assistant to the Secretary (National Security)
U S Savings Bonds Division
Assistant Secretary (Economic Policy)
Office of Financial Analysis
Fiscal Assistant Secretary
Bureau of Government Financial Operations
Bureau of the Public Debt
Under Secretary
Assistant Secretary (Administration)
Office of Administrative Programs
Office of Audit
Office of Budget and Program Analysis
Office of Computer Science
Office of Equal Opportunity Program
Office of Management and Organization
Office of Personnel
Assistant Secretary (Legislative Affairs)
Special Assistant to the Secretary (Public Affairs)
Office of Revenue Sharing
Bureau of Alcohol, Tobacco and Firearms
U S Customs Service
Bureau of Engraving and Printing
Bureau of the Mint
U S Secret Service
Federal Law Enforcement Training Center
Assistant Secretary (Enforcement Operations and Tariff Affairs)
Office of Law Enforcement
Office of Operations
Office of Tariff Affairs
Office of Foreign Assets Control
General Counsel
Legal Division Office of Director of Practice
Comptroller of the Currency
First Deputy Comptrollers
Deputy Comptrollers

improving the structure and stabilizing operations of the international monetary and investment system; monitor developments in foreign exchange operations; coordinate policies and programs of bilateral and multilateral development lending programs and institutions; formulate policy concerning financing of trade; coordinate policies toward foreign investment abroad; perform research studies on international monetary, economic, and financial issues; and gather and analyze balance of payments data.

The ADB, IDB, IBRD, and AFDF provide loans and other types of assistance in the health area to countries worldwide. Water supply, sanitation, health services delivery, health training, and health planning and administration are only a few of the activities supported by the United States through its financial contributions.

Source of Information

The Office of International Development Banks can be contacted for other information on the Department of the Treasury's international health activities.

13. Environmental Protection Agency

The purpose of the Environmental Protection Agency (EPA) is to protect and enhance the environment of the Nation today and for future generations to the fullest extent possible under the laws enacted by Congress. The EPA mission is to control and abate pollution in the air, water, solid waste, pesticides, noise, and radiation by proper integration of a variety of research, monitoring, standard setting, and enforcement activities. EPA's mandate is to mount an integrated, coordinated attack on environmental pollution in cooperation with State and local governments, private and public groups, individuals, and educational institutions.

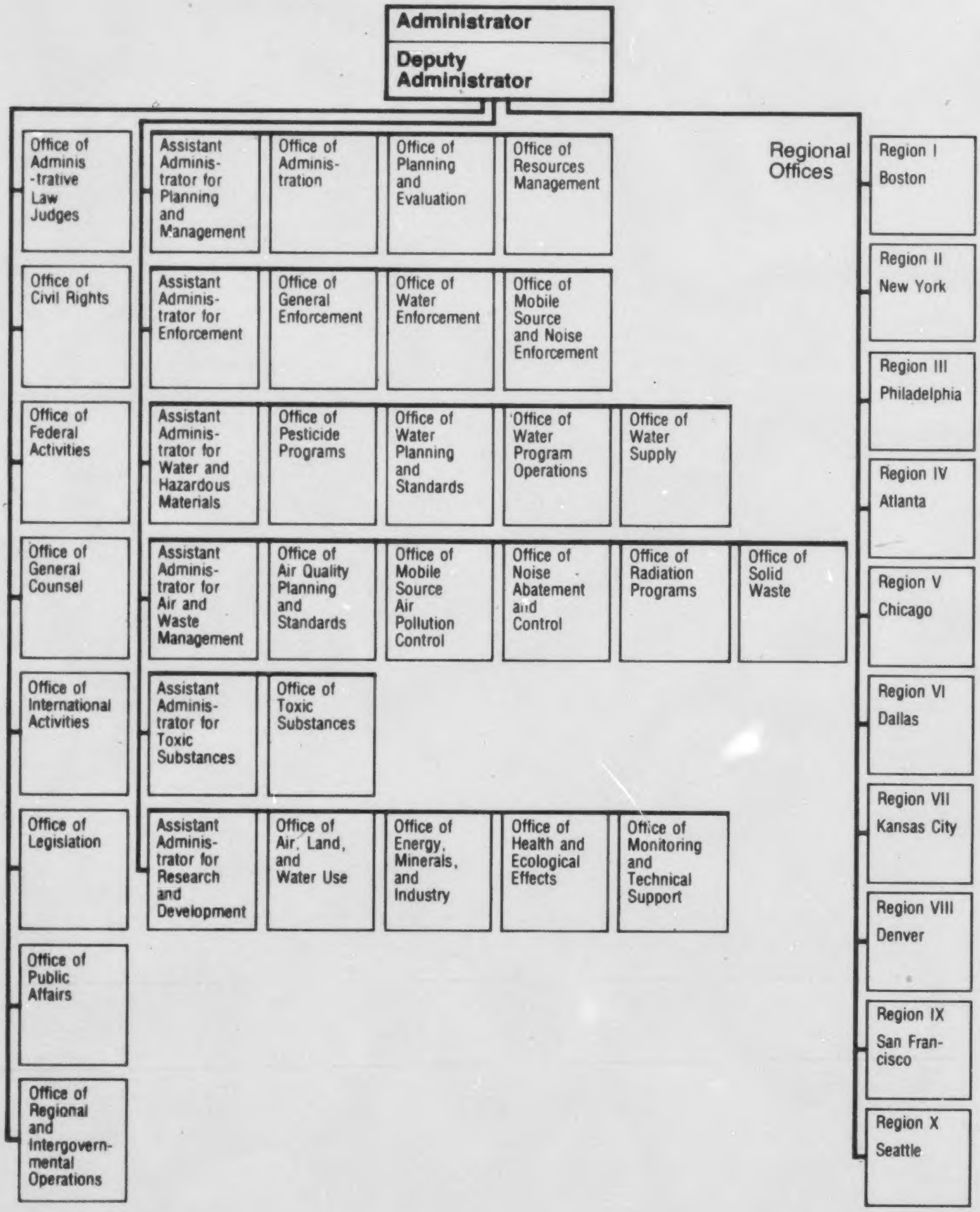
The Environmental Protection Agency was established in the Executive Branch as an independent agency pursuant to Reorganization Plan No. 3 of 1970, effective December 2, 1970 (see Figure 24).

Programs and Activities

Air and waste management programs. The air activities of EPA include development of national programs, technical policies, and regulations for air pollution control; development of national standards for air quality, emission standards for new stationary sources, and emission standards for hazardous pollutants; technical direction, support, and evaluation of regional air activities; and provision of training in the field of air pollution control.

Toxic substances programs. The Office of Assistant Administrator for Toxic Substances is responsible for development of national strategies for the control of toxic substances; of criteria for assessing chemical substances; of standards for test

Figure 24. Environmental Protection Agency


Administrator
Deputy Administrator
Office of Adminis-trative Law Judges
Office of Civil Rights
Office of Federal Activities
Office of General Counsel
Office of International Activities
Office of Legislation
Office of Public Affairs
Office of Regional and Intergovern-mental Operations
Assistant Adminis-trator for Planning and Management
Office of Adminis-tration
Office of Planning and Evaluation
Office of Resources Management
Assistant Adminis-trator for Enforcement
Office of General Enforcement
Office of Water Enforcement
Office of Mobile Source and Noise Enforcement
Assistant Adminis-trator for Water and Hazardous Materials
Office of Pesticide Programs
Office of Water Planning and Standards
Office of Water Program Operations
Office of Water Supply
Assistant Adminis-trator for Air and Waste Management
Office of Air Quality Planning and Standards
Office of Mobile Source Air Pollution Control
Office of Noise Abatement and Control
Office of Radiation Programs
Office of Solid Waste
Assistant Adminis-trator for Toxic Substances
Office of Toxic Substances
Assistant Adminis-trator for Research and Development
Office of Air, Land, and Water Use
Office of Energy, Minerals, and Industry
Office of Health and Ecological Effects
Office of Monitoring and Technical Support
Regional Offices
Region I Boston
Region II New York
Region III Philadelphia
Region IV Atlanta
Region V Chicago
Region VI Dallas
Region VII Kansas City
Region VIII Denver
Region IX San Fran-cisco
Region X Seattle

protocols for chemicals; of rules and procedures for industry reporting; and of regulations for the control of substances deemed to be hazardous to man or the environment. It also evaluates and assesses the impact of new chemicals and chemicals with new uses to determine their hazard and, if needed, develop appropriate restrictions.

Water and hazardous materials programs. EPA water quality activities represent a coordinated effort to restore U.S. waters. The functions of this program include development of national programs, technical policies, and regulations for water pollution control and water supply; development of water quality standards and effluent guidelines; technical direction, support, and evaluation of regional water activities; development of programs for technical assistance and technology transfer; and provision of training in the field of water quality.

Research and development. The Office of the Assistant Administrator for Research and Development is responsible for a national research program in pursuit of technological controls of all forms of pollution. It directly supervises the research activities of EPA national laboratories and gives technical policy direction to those laboratories which support the program responsibilities of EPA regional offices.

International activities. EPA international health activities include technical assistance in environmental health, educational and cultural exchange, research training, and policy development through participation in international organizations. These activities serve to increase environmental health knowledge worldwide in addition to facilitating research to improve the quality of life and the environment.

Source of Information

The EPA Office of International Activities, Division of Multilateral Organizations, can be contacted for additional information on international health activities.

14. Export-Import Bank

The Export-Import Bank of the United States, known as Eximbank, facilitates and aids in financing exports of U.S. goods and services. Eximbank has implemented a variety of programs to meet the needs of the U.S. exporting community, according to the size of the transaction. These programs take the form of direct lending or the issuance of guarantees and insurance, so that exporters and private banks can extend appropriate financing without taking undue risks. The Eximbank direct lending program is limited to larger sales of U.S. products and services around the world. Eximbank guarantees, insurance, and discount programs have been designed to assist exporters in smaller sales of products and services.

The Export-Import Bank, located in Washington, D.C., was authorized in 1934 as a banking corporation organized under the laws of the District of Columbia (Executive Order 6581, February 2, 1934).

The purpose of Eximbank is to aid in financing and to facilitate exports, imports, and the exchange of commodities between the United States or any of its territories or insular possessions and any foreign country or the agencies or nationals thereof. The Export-Import Bank Act of 1945, as amended, expresses the policy of the Congress that Eximbank should supplement and encourage but not compete with private capital; that loans should generally be for specific purposes and at rates based upon the average cost of money to the Bank, as well as on the Bank's mandate to provide competitive financing and offer reasonable assurance of repayment; that U.S. exports should be provided with financing that is competitive with the financing provided by principal foreign competitors of the United States; and that in authorizing loans or guarantees, account should be taken of any serious adverse effects upon the competitive position of U.S. industry, the availability of materials which are in short supply in the United States, and employment in the United States.

Programs and Activities

The recognition that export credit availability is as important a competitive tool as price, quality, or service has resulted in programs designed to meet specific exporter needs and to broaden significantly the horizon of export opportunity for American industry.

Among the programs Eximbank offers are those relating to direct credits to borrowers outside the United States, export credit insurance, and export credit guarantees. Long-term direct credits to foreign borrowers are usually extended in connection with sales abroad of capital goods. Eximbank will finance a portion of the U.S. costs with the balance of the financing provided from the borrowers' own resources and private sources. Eximbank may guarantee part or all of the private financing. Loans, guarantees, and insurance were provided by Eximbank in FY 1976, for example, for the export of biomedical equipment, health facility construction materials, and pharmaceuticals. The primary purpose was to promote commercial export of these U.S. materials to foreign countries.

Source of Information

The Office of Governmental Affairs at the Eximbank should be contacted for additional information on international commercial activities.

15. Federal Aviation Administration

The Federal Aviation Administration (FAA) currently operates under the Federal Aviation Act of 1958, P.L. 85-726. Its primary activity in the field of international health is bilateral research with the U.S.S.R. on the medical aspects of flight.

Source of Information

Additional information can be requested from the Office of Aeromedical Sciences, Aeromedical Applications Division.

16. Inter-American Foundation

The Inter-American Foundation is an independent corporation of the U.S. Government that supports and stimulates social change in Latin America and the Caribbean. It provides support through grants and the financing of projects for private, community-level, self-help efforts in solving basic social and economic problems.

The Inter-American Foundation was created as a corporation of the U.S. Government by an act of December 30, 1969 (83 Stat. 821; 22 U.S.C. 290f). The Foundation is empowered to receive and utilize private contributions and resources entrusted to it by international lending agencies.

Programs and Activities

The Foundation is not a development agency in the usual sense since it has no resident staff in Latin America or the Caribbean, does not design or operate projects, and does not provide technical assistance. The purpose of the Foundation is to support social change in Latin America and the Caribbean. It tries to be responsive to the efforts of nongovernmental groups to solve basic social and economic problems. This approach stems from the belief that only the recipients themselves can define problems and needs in their communities according to their own cultural values.

Projects funded include a wide variety of activities, such as workers' self-managed enterprises, credit production cooperatives, cultural awareness programs, self-help housing, agricultural extension services, legal aid clinics, a bank run by and for workers, peasant associations, and informal education. In FY 1976, for example, the Foundation provided funds for community-oriented health services delivery, health training, and health planning and administration activities.

Source of Information

The Office of the General Counsel should be contacted for additional information on the international health activities of the Inter-American Foundation.

17. National Academy of Sciences, National Academy of Engineering, National Research Council, and Institute of Medicine

The National Academy of Sciences (NAS) was established by an act of Congress approved by President Abraham Lincoln on March 3, 1863 (12 Stat. 806).

In 1916 President Woodrow Wilson asked the Academy to organize, under the terms of its charter, the National Research Council (NRC) as a measure of national preparedness. The Research Council was perpetuated by the Academy on April 29, 1919, in response to a further request from President Wilson and operates in accordance with Executive Order 2859 of May 11, 1918, as amended by Executive Order 10668 of May 10, 1956.

The National Academy of Engineering (NAE) was established on December 5, 1964, when the Council of the National Academy of Sciences, under the authority of its act of incorporation, adopted the Academy into being as a parallel organization, autonomous in its organization and election of members, and closely coordinated with the Academy of Sciences in its advisory activities.

The Institute of Medicine (IOM) was chartered by the National Academy of Sciences in 1970.

Programs and Activities

National Academy of Sciences. The National Academy of Sciences (NAS) is an organization of distinguished scientists and engineers dedicated to the furtherance of science and its use for the general welfare. Although not a government agency, NAS has long enjoyed close relations with the Federal Government. Its congressional charter of 1863 specifies:

> The Academy shall, whenever called upon by any department of the Government, investigate, examine, experiment, and report upon any subject of science or art, the actual expense of such investigations, examinations, experiments, and reports to be paid from appropriations which may be made for the purpose, but the Academy shall receive no compensation whatever for any service to the Government of the United States.

Thus, no Federal funds are appropriated directly to the Academy, the principal funding mechanism typically being the negotiation of contracts with government agencies.

National Academy of Engineering. The National Academy of Engineering (NAE) shares in the objectives and responsibilities of NAS by bringing to bear the leadership of the Nation's most eminent engineers in sponsoring engineering programs aimed at meeting national needs, encouraging engineering research, and advising the Federal Government upon request in matters of engineering.

National Research Council. The National Research Council (NRC), which was organized by NAS to facilitate the participation of a broader representation of scientists and technologists in carrying out its objectives, serves as the principal operating agency of NAS and NAE. The purpose of NRC is to stimulate scientific research and to foster the application of research findings to engineering, agriculture, medicine, and other useful arts, with the object of increasing knowledge and contributing in other ways to the public welfare.

The National Research Council does not maintain laboratories of its own but seeks to stimulate and support the work of individual scientists and engineers and to coordinate investigations dealing with broad problems in research both nationally and internationally. The effectiveness of NRC is dependent on the voluntary, personal participation of thousands of American scientists and engineers who collaborate in these undertakings, giving generously of their time and efforts without financial compensation.

The organization directly administers about $50 million annually of funds provided by contributions, grants, and contracts from Federal and State agencies, private industries and foundations, scientific societies, and individuals. A portion of these funds supplements endowment income and gifts in meeting general expenses. Recent international health efforts of the Academy have included studies of U.S. policy in international health and world food and nutrition research needs.

Institute of Medicine. The Institute of Medicine (IOM) was established in recognition of the important and complex problems posed in the provision of adequate health services to all sectors of society. IOM identifies, for study and analysis, important issues and problems that relate to health and medicine; initiates and conducts studies of national policy and planning for health care and health-related education and research; responds to requests from the Federal Government and other agencies for studies and advice on matters relating to health and medicine; establishes liaison with the major scientific and professional societies in the field; and disseminates information to the public and the relevant professions. In the field of international health, for example, IOM provided a special analysis of U.S. biomedical research during FY 1976, and prepared a report on international health in FY 1978.

Source of Information

Additional information on the international health activities of the Institute of Medicine can be obtained from the Division of International Health, National Science Foundation.

18. National Aeronautics and Space Administration

In carrying out the policy of Congress that activities in space should be devoted to peaceful purposes for the benefit of all mankind, the principal statutory functions of the National Aeronautics and Space Administration (NASA) are to conduct research for the solution of problems of flight within and outside the earth's atmosphere; develop, construct, test, and operate aeronautical and space vehicles; carry out activities required for the exploration of space with manned and unmanned vehicles; arrange for the most effective utilization of the scientific and engineering resources of the United States with other nations engaged in aeronautical and space activities for peaceful purposes; and provide for the widest practicable and appropriate dissemination of information concerning NASA's activities and their results.

The National Aeronautics and Space Administration was established by the National Aeronautics and Space Act of 1948 (72 Stat. 426; 42 U.S.C. 2451 et seq.), as amended.

Programs and Activities

The Office of Applications is responsible for the conduct of research and development activities leading to programs that demonstrate the application of space systems, space environment, and space-related or derived technology for the benefit of mankind. These activities involve disciplines such as weather and climate, pollution monitoring, earth resources surveys, and earth and ocean physics.

The Office of Applications is responsible for the procurement and use of small- and medium-class, expendable launch vehicles presently used to support unmanned missions for NASA, other government agencies, foreign governments, and foreign and domestic corporations.

The Office of Space Science is responsible for a program of scientific investigations in space to further knowledge of the earth and its atmosphere, the solar system, and the universe. In conducting this program, the Office of Space Science utilizes automated and manned spacecraft, sounding rockets, balloons, aircraft, and ground-based research.

In the international arena, activities related to health include: environmental quality monitoring, communications, and remote sensing satellites. The environmental quality monitoring satellites are used to identify and measure earth's air and water pollution. Additionally, the Stratospheric Aerosol and Gas Experiment (SAGE) satellite is an experiment to develop a monitoring technique to measure stratospheric aerosols and gases and their impact on global climate. The communication satellites are utilized to facilitate media broadcasts in the promotion of rural health education. The remote sensing satellites assist in the collection of demographic and other health data.

Source of Information

Within NASA the Office of International Planning and Programs and the Office of International Affairs are available to provide detailed international health program information.

19. National Oceanic and Atmospheric Administration

The National Oceanic and Atmospheric Administration (NOAA) was formed on October 3, 1970, by Reorganization Plan 4 of 1970.

Programs and Activities

The mission of NOAA is to explore, map, and chart the global ocean and its living resources; to manage, use, and conserve those resources; to describe, monitor, and predict conditions in the atmosphere, ocean, sun, and space environment; to issue warnings against impending destructive natural events; to develop beneficial methods of environmental modification; and to assess the consequences of inadvertent environmental modification over several scales of time.

NOAA conducts broad research programs in marine and atmospheric sciences, solar-terrestrial physics, and experimental meterology, including weather modification. NOAA conducts biological research and surveys of the living resources of the sea, analyzes economic aspects of fisheries operations with an eye to improving man's ability to use and conserve those resources, and protects marine mammals. In the field of international health, in FY 1976 NOAA performed such activities as weather reporting and research into the development of food supplies from the ocean.

Source of Information

More information of the Department's health programs can be obtained from the Office of the Assistant Secretary for Policy Development, Office of Policy Development and Coordination.

20. Office of Science and Technology Policy

The Office of Science and Technology Policy (OSTP) was established within the Executive Office of the President by the National Science and Technology Policy, Organization, and Priorities Act of 1976 (90 Stat. 463; 42 U.S.C. 6611), approved May 11, 1976.

Programs and Activities

The Office of Science and Technology Policy serves in the Executive Office of the President as a source of scientific, engineering, and technological analysis and judgment for the President with respect to major policies, plans, and programs of the Federal Government. In carrying out this mission, OSTP advises the President of scientific and technological considerations involved in areas of national concern, including the economy, security, health, foreign relations, and the environment. It evaluates the scale, quality, and effectiveness of the Federal effort in science and technology; provides advice and assistance to the President, the Office of Management and Budget, and Federal agencies throughout the Federal budget development process; and assists the President in providing leadership and coordination of Federal Government research and development programs.

In the international field, in FY 1976 OSTP reviewed Federal research and development programs which have implications for U.S. research activities worldwide. Additionally OSTP provided health-related science and technology policy analysis and advice to the Executive Office.

Source of Information

Further contact may be made with the Office of the Assistant Director for Human Resources, Social, and Economic Services, for details of international health programs.

21. Overseas Private Investment Corporation

The Overseas Private Investment Corporation (OPIC) assists U.S. investors in making profitable investments in about 80 developing countries. It encourages investment projects that will help the social and economic development of these countries. At the same time, OPIC helps U.S. balance of payments through profits returned to this country, and it contributes to the creation of U.S. jobs and increase of exports. OPIC offers U.S. investors assistance in finding investment opportunities, insurance to protect their investments, and loans and loan guarantees to help finance their projects.

OPIC was authorized as an independent agency in the Executive Branch pursuant to the act of December 30, 1969 (83 Stat. 805; 22 U.S.C. 2191 et seq.). The authorities were formally transferred to the Corporation by Executive Order 11579 of January 19, 1971.

Programs and Activities

By reducing or eliminating the risks for investors and providing financing and assistance not otherwise available, OPIC helps ease the social, political, and economic problems that can make investment opportunities in the developing areas less attractive than in advanced countries. At the same time, OPIC is reducing the need for government-to-government lending programs by involving the U.S. private sector in establishing capital-generating capacity and industrial capacity in developing countries.

OPIC insures U.S. investors against the political risks of expropriation; inconvertibility of local currency holdings; and damage from war, revolution, or insurrection. It also offers a special insurance policy to U.S. construction and service firms seeking contracts in developing countries.

OPIC offers U.S. lenders protection against both commercial and political risks by guaranteeing payment of principal and interest on loans made to eligible private enterprises. The Corporation offers investment information and counseling, and also shares in the costs of finding and developing projects.

Since OPIC programs are available only for a new facility, expansion or modernization of an existing plant, or new inputs of technology or services, the investments it covers are more likely to produce significant new benefits for host countries. In pursuit of its objectives OPIC in FY 1976 provided guarantees, loans, and insurance to U.S. firms for construction of health facilities; projects including nutrition and health education components; expansion or establishment of projects to manufacture and service medical supplies and equipment, and pharmaceuticals.

Source of Information

The Office of Policy and Program Planning, Office of Development, may be contacted for specific health program information.

22. United States Information Agency*

The United States Information Agency (USIA) has responsibility for the conduct of overseas information and cultural programs to promote greater understanding of the United States, its government, its people, its customs and traditions, and its policies, both foreign and domestic. USIA uses a wide variety of communications techniques – from personal contact to television satellites – to explain those policies and provide the reasons for them.

The United States Information Agency was established as an independent agency of the Executive Branch of the U.S. Government by Reorganization Plan 8 on August 1, 1953. The basic legislative authority for USIA and its predecessor organizations, United States Information and Educational Exchange Act of 1948, as amended (62 Stat. 6; 22 U.S.C. 1431), provides for the dissemination abroad of information about all aspects of the United States. In the field of international health, in FY 1976 USIA provided media broadcasts and exhibits on health topics. The major objective was to provide information on U.S. health policies and practices.

Programs and Activities

Among the means used to achieve USIA goals are radio broadcasting, motion pictures, television, exhibits, personal contact, lectures and seminars, information centers, libraries, English language instructions, press placement, magazines and other publications, book translation and distribution, and facilitative assistance to foreign press and television journalists covering public affairs and developments in the United States. USIA officers abroad also carry out the overseas functions of the Department of State's educational and cultural exchange programs.

---

*USIA was reorganized in 1978 as the International Communications Agency, but its mission is basically unchanged.

Source of Information

Within USIA the Planning and Program Advisory Staff, Office of the Social Science Adviser, can provide additional data on international health programs.

23. The Veterans Administration

A thorough system of benefits for veterans and dependents is administered by the Veterans Administration (VA) (Figure 25). These benefits include compensation payments for disabilities or death related to military service; pension based on financial need for totally disabled veterans or certain survivors with disabilities not related to military service; education and rehabilitation; home loan guarantees; burial, including cemeteries, markets, flags, etc.; and a comprehensive medical program involving a widespread system of nursing homes, clinics, and more than 170 hospitals.

The Veterans Administration was established as an independent agency under the President by Executive Order 5398 of July 21, 1930 (46 Stat. 1016).

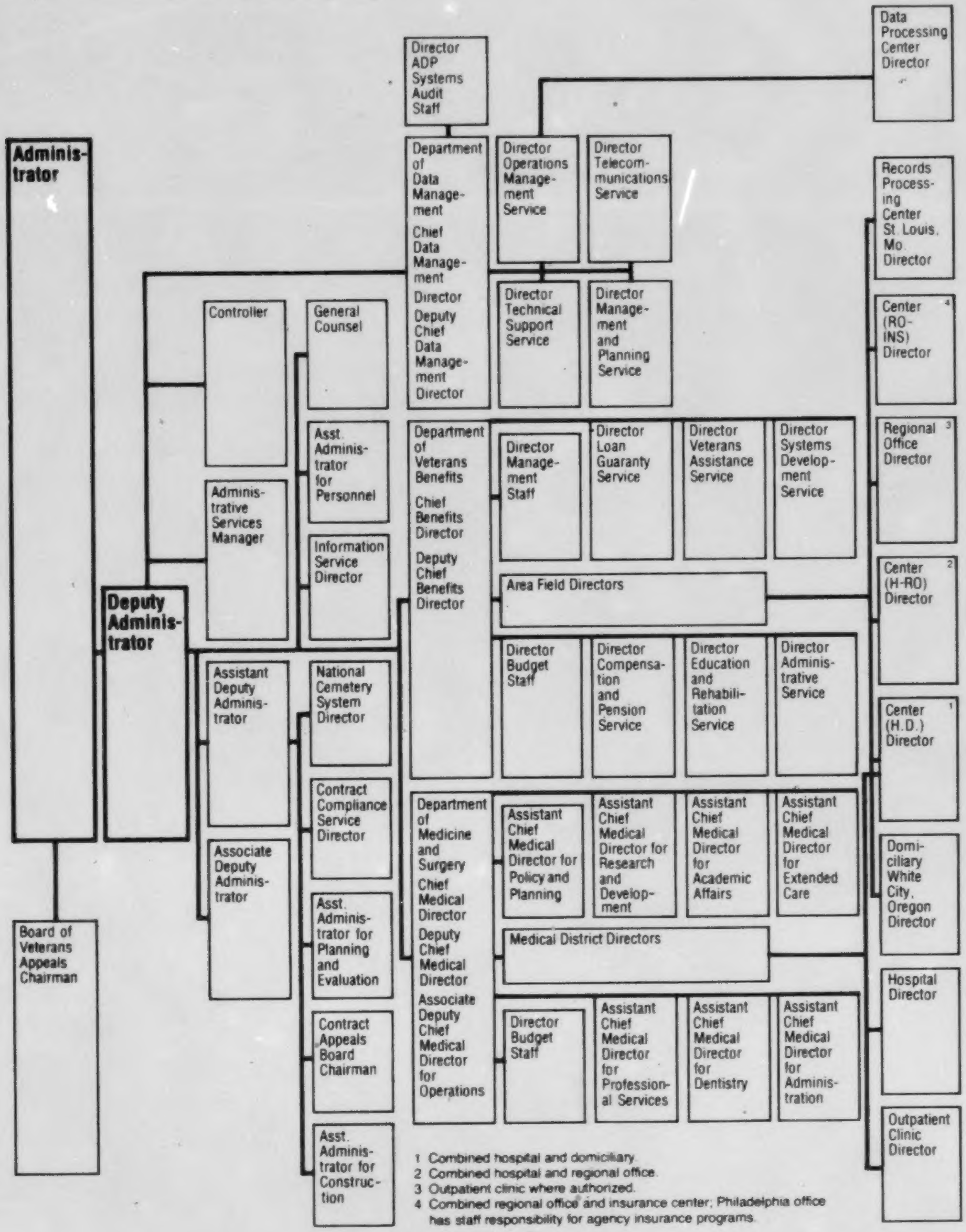
Programs and Activities

The VA's international activities include: foreign post graduate medical training; financing of medical and hospital services for Philippine war veterans; and provision of health services for U.S. veterans and other eligible beneficiaries abroad. The training program is administered to enhance the medical intelligence of foreign and U.S. medical trainees. The provision of medical services in the Philippines is for the benefit of Philippine war veterans who have served in U.S. wars.

Source of Information

The Veterans Administration Central Office, Regionalization and Sharing Division, can be contacted to obtain further data on VA international health programs.

Figure 25. Veterans Administration


Director ADP Systems Audit Staff
Data Processing Center Director
Administrator
Department of Data Management
Chief Data Management Director
Deputy Chief Data Management Director
Director Operations Management Service
Director Telecommunications Service
Records Processing Center St. Louis, Mo. Director
Director Technical Support Service
Director Management and Planning Service
Controller
General Counsel
Center (RO-INS) Director 4
Asst. Administrator for Personnel
Administrative Services Manager
Information Service Director
Department of Veterans Benefits
Chief Benefits Director
Deputy Chief Benefits Director
Director Management Staff
Director Loan Guaranty Service
Director Veterans Assistance Service
Director Systems Development Service
Regional Office Director 3
Area Field Directors
Center (H-RO) Director 2
Deputy Administrator
Assistant Deputy Administrator
National Cemetery System Director
Director Budget Staff
Director Compensation and Pension Service
Director Education and Rehabilitation Service
Director Administrative Service
Center (H.D.) Director 1
Contract Compliance Service Director
Associate Deputy Administrator
Department of Medicine and Surgery
Chief Medical Director
Deputy Chief Medical Director
Associate Deputy Chief Medical Director for Operations
Assistant Chief Medical Director for Policy and Planning
Assistant Chief Medical Director for Research and Development
Assistant Chief Medical Director for Academic Affairs
Assistant Chief Medical Director for Extended Care
Domiciliary White City, Oregon Director
Medical District Directors
Board of Veterans Appeals Chairman
Asst. Administrator for Planning and Evaluation
Hospital Director
Contract Appeals Board Chairman
Director Budget Staff
Assistant Chief Medical Director for Professional Services
Assistant Chief Medical Director for Dentistry
Assistant Chief Medical Director for Administration
Outpatient Clinic Director
Asst. Administrator for Construction

1 Combined hospital and domiciliary.
2 Combined hospital and regional office.
3 Outpatient clinic where authorized.
4 Combined regional office and insurance center; Philadelphia office has staff responsibility for agency insurance programs.

3-B. International Organization Program Descriptions

1. Food and Agriculture Organization

The purposes for which the Food and Agriculture Organization (FAO) was established are to raise levels of nutrition and standards of living, to secure improvements in the efficiency of production and distribution of all food and agricultural products, and to better the condition of rural populations.

FAO participates with:

- Agency for International Development
- Department of Agriculture
- Department of Commerce
- Department of Health, Education, and Welfare
- Department of the Interior
- Department of State
- Environmental Protection Agency

2. International Agency for Research on Cancer

The purpose of the International Agency for Research on Cancer (IARC) is to accelerate efforts to control cancer through expanded international cooperation in cancer research. The work to be carried out supplements that of countries engaged in cancer research and the international status of IARC enables it to collect and develop valuable research material heretofore unavailable through national research programs.

IARC participates with:

- Department of Health, Education, and Welfare
- Department of State

3. Organization for Economic Cooperation and Development

The first aim of the Organization for Economic Cooperation and Development (OECD) is to promote policies designed to achieve and maintain the highest sustainable rate of economic growth and employment, including a rising standard of living with financial stability. The second goal is to expand and improve financial and technical assistance to peoples in the developing areas of the world. A third objective is to advance policies for expansion of world trade on a multilateral nondiscriminatory basis.

OECD participates with:

- Agency for International Development
- Council of Economic Advisers
- Council on International Economic Policy
- Department of Agriculture
- Department of Commerce
- Department of Health, Education, and Welfare
- Department of the Interior
- Department of Justice
- Department of Labor
- Department of State
- Department of Transportation
- Department of the Treasury
- Energy Research and Development Administration
- Environmental Protection Agency
- Export-Import Bank
- Federal Energy Administration
- Federal Research Board
- National Science Foundation
- Nuclear Regulatory Commission
- Office of Telecommunications Policy
- Office of the Special Representative for Trade Negotiations

4. Pan American Health Organization*

The fundamental purpose of the Pan-American Health Organization (PAHO) is to promote and coordinate efforts of the countries of the Western Hemisphere to combat disease, lengthen life, and promote the physical and mental health of their peoples.

PAHO participates with:

- Agency for International Development
- Department of Health, Education, and Welfare
- Department of State
- Department of Transportation
- Environmental Protection Agency

5. United Nations Children's Fund

The main purpose of the United Nations Children's Fund (UNICEF) is to assist governments in underdeveloped areas of the world to establish and carry out long-range health, nutrition, education, and welfare programs for children and mothers. Assistance which UNICEF, with the technical guidance of the specialized agencies of the United Nations, makes available to governments includes six main categories: health services, family planning, nutrition, education, family and child welfare services, and emergency aid.

UNICEF participates with:

- Agency for International Development
- Department of Agriculture
- Department of Health, Education, and Welfare
- Department of State

6. United Nations Development Program

The purpose of the United Nations Development Program (UNDP) is to provide systematic and sustained assistance in fields essential to technical, economic, and social advancement of developing countries.

---

*Source: U.S. Department of State. 1976. United States Contributions to International Organizations. (Report to the Congress; Publication No. 8882 and House Document No. 95-11) Washington, D.C.: U.S. Government Printing Office.

Through thousands of small-scale projects, technical assistance is provided governments in formulating their development plans and in building up responsible administrative machinery in many fields including health.

Through hundreds of larger-scale projects, UNDP provides a bridge between its advisory and training projects and development capital furnished by the World Bank and similar institutions.

UNDP participates with:

- Agency for International Development
- Department of Commerce
- Department of the Interior
- Department of State

7. United Nations Educational, Scientific, and Cultural Organization

The purpose of the United Nations Educational, Scientific, and Cultural Organization (UNESCO) is to contribute to peace and security by promoting collaboration among member states in the fields of education, science, and culture.

UNESCO participates with:

- Agency for International Development
- Department of Commerce
- Department of Health, Education, and Welfare
- Department of the Interior
- Department of State
- Environmental Protection Agency
- Federal Communications Commission
- Library of Congress
- National Academy of Sciences
- National Science Foundation

8. United Nations Environmental Program

The major responsibilities of the United Nations Environmental Program (UNEP) include promoting and coordinating international cooperation in the field of the human environment and providing general policy guidance for environmental programs within the United Nations. Furthermore, UNEP is responsible for keeping under review the world environmental situation to ensure that international environmental problems receive appropriate consideration by governments.

UNEP participates with:

- Agency for International Development
- Department of Commerce
- Department of State
- Environmental Protection Agency

9. United Nations Fund for Drug Abuse Control

The United Nations Fund for Drug Abuse Control (UNFDAC) is a special fund designed to assist member governments in short- and long-term plans and programs to eliminate the supply of illicit drugs, to diminish the demand for them, and to repress illicit drug traffic.

UNFDAC participates with:

- Department of Agriculture
- Department of Health, Education, and Welfare
- Department of Justice
- Department of State
- Department of the Treasury

10. United Nations Fund for Population Activities

The aims and purposes of the United Nations Fund for Population Activities (UNFPA) are: (1) to build up, on an international basis, with the assistance of the competent bodies of the U.N. system, the knowledge and capacity to respond to national, regional, interregional, and global needs in the population and family planning fields; and (2) to promote awareness, both in developed and in developing countries, of the social, economic, and environmental implications of national and international population problems.

UNFPA participates with:

- Agency for International Development
- Department of State

11. United Nations Relief and Works Agency for Palestine Refugees in the Near East

The United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA) provides relief services for Palestine refugees, including food, health, and welfare services. It also provides education and training for refugee children to assist them in becoming self-sustaining and part of the regular economic life of the region.

UNRWA participates with:

- Agency for International Development
- Department of State

12. United Nations Volunteer Program

The United Nations Volunteer Program (UNVP) represents the translation of a U.S. initiative of the 1960s, the establishment of the American Peace Corps, into a multilateral effort. This program provides U.N.-financed technical assistance projects with a dynamic and inexpensive source of manpower and provides youth with an opportunity to serve in U.N. development programs. By the end of 1975, 268 volunteers were in the field; 28 of them were Americans.

UNVP participates with:

- ACTION
- Department of State

13. World Health Organization*

The World Health Organization (WHO) acts as a coordinating authority on international public health works. It helps build strong national health services capable of meeting essential health needs independent of outside aid; stimulates and works with governments on programs to eradicate endemic and other widespread diseases such as malaria, smallpox, tuberculosis, and venereal diseases; promotes activities in the field of population and the improvement of nutrition, environmental sanitation, maternal and child care, and mental health; encourages research in health; assists governments in setting up or reorganizing their health services; works for the standardization of diagnostic procedures; promotes adoption of international standards with respect to food, biological, and pharmaceutical products; furnishes advice and direct aid to governments in emergencies; and provides fellowships and training so that local personnel will be available to governments for necessary public health work.

WHO participates with:

- Agency for International Development
- Department of Health, Education, and Welfare
- Department of the Interior
- Department of State
- Environmental Protection Agency

---

*Source: U.S. Department of State. 1976. United States Contributions to International Organizations. (Report to the Congress; Publication No. 8882 and House Document No. 95-11) Washington, D.C.: U.S. Government Printing Office.

3-C. International Financial Institutions

1. Asian Development Bank*

The Asian Development Bank (ADB) fosters and accelerates economic development in member countries of Asia and the Far East.

ADB participates with:

- Agency for International Development
- Department of Commerce
- Department of State
- Department of the Treasury
- Export-Import Bank
- Federal Reserve Bank

2. Inter-American Development Bank

The Inter-American Development Bank (IADB) was founded in 1959 to promote the individual and collective growth of member countries through the financing of economic and social development projects and the provision of technical assistance. IADB helps to implement the objectives of the inter-American system.

IADB participates with:

- Agency for International Development
- Department of Commerce
- Department of the Interior
- Department of the Treasury
- Export-Import Bank
- Federal Reserve Board

---

*Source: U.S. Senate, Committee on Government Operations. 1977. U.S. Participation in International Organizations. Washington, D.C.: U.S. Government Printing Office.

---

3. International Bank for Reconstruction and Development

The International Bank for Reconstruction and Development (IBRD), commonly known as the World Bank, was established on December 27, 1945. Initially concerned with post-war reconstruction in Europe, IBRD is now involved with assisting in the economic development of member nations by making loans to finance productive investments where private capital is not available on reasonable terms. Loans are made either directly to governments or to private enterprises with the guarantee of their governments.

IBRD participates with:

- Agency for International Development
- Department of Commerce
- Department of the Interior
- Department of State
- Department of the Treasury
- Export-Import Bank
- Federal Reserve Board

4. International Monetary Fund

The International Monetary Fund (IMF) was established in December 1945 to maintain stability in international currency rates. It handles various arrangements for the sale of foreign exchange to countries with balance-of-payments deficits. A device called a special drawing account was introduced in 1970 as a means of strengthening national reserves.

Appendix 4

Chronological List of U.S. Legislative Authorities Related to International Health

Legislation: Public Laws	Date	Title	Description
P.L. 75-717	June 25, 1938	Federal Food, Drug, and Cosmetic Act	Prohibited movement in interstate commerce of adulterated and misbranded food, drugs, and cosmetics
P.L. 78-410	July 1, 1944	Public Health Service Act	Consolidated all public health service authorities into a single statute
P.L. 79-171	July 31, 1945	Bretton Woods Agreement Act	Provided for participation of the United States in International Monetary Fund and the International Bank for Reconstruction and Development
P.L. 79-173	July 31, 1945	Export-Import Bank	Provided for increased lending authority of Export-Import Bank of Washington
P.L. 79-264	Dec. 20, 1945	United Nations Participation Act	Provided for appointment of representatives of the United States in the organizations and agencies of the United Nations and made other provisions for participation within the United Nations
P.L. 79-724	Aug. 13, 1946	Foreign Service Act	Called for the improvement, strengthening, and expansion of the Foreign Service of the United States and the consolidation and revision of laws relating to the Administration
P.L. 80-402	Jan. 27, 1948	U.S. Information and Educational Exchange Act	Promoted better understanding of the United States and strengthened cooperative international relations
P.L. 80-643	June 14, 1948	World Health Organization Joint Resolution	Authorized U.S. membership and participation in the World Health Organization
P.L. 80-806	June 29, 1948	Commodity Credit Corporation Charter Act	Set up corporation to stabilize, support, and protect farm income and prices; assisted in the balance, adequate supply, and distribution of agricultural commodities
P.L. 81-507	May 10, 1950	National Science Foundation Act	Encouraged progress of science and advances in national health, prosperity, and welfare, and secured national defense
P.L. 82-414	June 27, 1952	Immigration and Nationality Act	Facilitated entry of certain highly qualified nonimmigrants
P.L. 83-480	July 10, 1954	Agricultural Trade Development and Assistance Act	Increased consumption of U.S. agricultural commodities in foreign countries and fostered improvement of U.S. foreign relations

Legislation: Public Laws	Date	Title	Description
P.L. 83-665	Aug. 26, 1954	Mutual Security Act	Promoted U.S. security and foreign policy by providing assistance to friendly nations
P.L. 83-690	Aug. 28, 1954	Agricultural Act	Supported greater agricultural stability and augmented the marketing and disposal of agricultural products
P.L. 83-703	Aug. 30, 1954	Atomic Energy Act	Amended Atomic Energy Act of 1946
P.L. 84-350	Aug. 11, 1955	International Finance Corporation Act	Provided for U.S. participation in the International Finance Corporation
P.L. 84-569	June 7, 1956	Dependents Medical Care Act	Extended medical care to dependents of members of armed services
P.L. 84-941	Aug. 3, 1956	National Library of Medicine Act	Established in the Public Health Service a national library of medicine to assist in the dissemination and exchange of scientific information
P.L. 85-507	July 7, 1958	Government Employees Training Act	Established training programs in subjects related to official duties for civilian officers and employees of U.S. Government
P.L. 85-554	July 25, 1958	U.S. Code, Title 28, Amendments	Amended jurisdiction of district courts in civil actions in which foreign states or citizens are a party
P.L. 85-568	July 29, 1958	National Aeronautics and Space Act	Authorized research into problems of flight within and outside earth's atmosphere
P.L. 85-726	Aug. 23, 1958	Federal Aviation Act	Continued Civil Aeronautics Board, created Federal Aviation Agency, and provided for the regulation and promotion of civil aviation
P.L. 85-795	Aug. 28, 1958	Federal Employees International Organization Service Act	Encouraged and authorized details and transfers of Federal employees for service with international organizations
P.L. 85-857	Sept. 2, 1958	U.S. Code, Title 38, Act	Codified and consolidated laws relating to veterans' benefits
P.L. 85-861	Sept. 2, 1958	Title 10, U.S. Code Amendments	Amended Titles 10, 14, and 32 U.S.C. to codify recent military law, and to improve the code
P.L. 86-48	June 17, 1959	Bretton Woods Agreement Act, Amendment	Authorized an increase in funds to International Bank for Reconstruction and Development

Legislation: Public Laws	Date	Title	Description
P.L. 86-147	Aug. 7, 1959	Inter-American Development Bank Act	Provided for U.S. participation in Inter-American Development Bank
P.L. 86-565	June 30, 1960	International Development Association Act	Provided for U.S. participation in International Development Association
P.L. 86-610	July 12, 1960	International Health Research Act	Established a national institute for international health and medical research, and provided for international cooperation endeavors in health research, research training, and research planning
P.L. 87-195	Sept. 4, 1961	Foreign Assistance Act	Promoted foreign policy, security, and general welfare of the United States by assisting the international community in their efforts toward economic development and internal and external security
P.L. 87-256	Sept. 21, 1961	Mutual Educational and Cultural Affairs Act	Provided educational and cultural exchanges for the improvement and strengthening of U.S. international relations
P.L. 87-293	Sept. 22, 1961	Peace Corps Act	Created Peace Corps to help people of interested countries and areas in meeting their needs for skilled manpower
P.L. 87-845	Oct. 18, 1962	Canal Zone Code Act	Revised and codified general and permanent laws relating to and in force in the Canal Zone
P.L. 88-259	Jan. 22, 1964	Inter-American Development Bank Act	Increased U.S. participation in Inter-American Development Bank
P.L. 88-310	May 26, 1964	International Development Association Act Amendment	Authorized increase of resources for U.S. participation in International Development Association
P.L. 89-6	March 24, 1965	Inter-American Development Bank Act Amendment	Authorized an increase in U.S. resources of the Fund for Special Operations of the Inter-American Development Bank
P.L. 89-369	March 16, 1966	Asian Development Bank Act	Provided for U.S. participation in Asian Development Bank
P.L. 89-614	Sept. 30, 1966	Military Medical Benefits Amendment	Authorized an improved health benefits program for retired members of uniformed services and their dependents, and the dependents of active duty members of uniformed services
P.L. 89-698	Oct. 29, 1966	International Education Act	Strengthened American educational resources for international studies and research
P.L. 89-808	Nov. 11, 1966	Food for Peace Act	Promoted international trade in agricultural commodities in order to combat hunger and malnutrition and to further economic development

Legislation: Public Laws	Date	Title	Description
P.L. 90-7	April 1, 1967	India, Emergency Food Assistance Joint Resolution	Helped India to meet critical food and nutritional needs by making available agricultural commodities and other resources
P.L. 90-88	Sept. 22, 1967	Inter-American Development Bank Act	Authorized an increase in resources of Fund for Special Operations of Inter-American Development Bank
P.L. 90-325	June 4, 1968	Inter-American Development Bank, Capital Stock Increase Act	Authorized increase in U.S. share of capital stock in Inter-American Development Bank
P.L. 90-390	July 17, 1968	Export-Import Bank Loans, Extension Act	Enabled Export-Import Bank to approve extension of certain loans, guarantees, and insurance in connection with exports
P.L. 90-407	July 18, 1968	National Science Foundation Act, Amendments	Made changes and improvements in organization and operation of the National Science Foundation
P.L. 90-494	Aug. 20, 1968	Foreign Service Information Officer Corps Act	Promoted the foreign policy of the United States by strengthening and improving the Foreign Service personnel system of the U.S. Information Agency through establishment of a Foreign Service Information Officer Corps
P.L. 90-496	Aug. 23, 1968	Virgin Islands Elective Governor Act	Provided for popular election of the Governor of the Virgin Islands
P.L. 91-172	Dec. 30, 1969	Tax Reform Act	Reformed income tax laws and outlined tax procedures for foundations to follow in the distribution of certain amounts of their income for charitable purposes
P.L. 91-175	Dec. 30, 1969	Foreign Assistance Act	Promoted U.S. foreign policy, security, and welfare by assisting other nations to achieve economic development within a framework of democratic economic, social, and political institutions
P.L. 91-190	Jan. 1, 1970	National Environmental Policy Act	Established national policy for the environment and provided for the creation of a Council on Environmental Quality
P.L. 91-225	April 7, 1970	Immigration and Nationality Act Amendments	Amended Immigration and Nationality Act to facilitate entry of certain nonimmigrants into United States
P.L. 91-599	Dec. 30, 1970	International Financial Institutions, U.S. Subscriptions and Quotas, Increase Act	Authorized an increase in U.S. resources of certain international financial institutions and provided an annual audit of Exchange Stabilization Fund by General Accounting Office

Legislation: Public Laws	Date	Title	Description
P.L. 92-245	March 10, 1972	Asian Development Bank, Special Funds, U.S. Contributions Act	Authorized development loans and allowed technical assistance credits to be given by Special Funds of the Asian Development Bank
P.L. 92-246	March 10, 1972	Inter-American Development Bank, Fund for Special Operations Act	Authorized payment and appropriation of second and third installments by U.S. contribution to the Fund for Special Operations within the Inter-American Development Bank
P.L. 92-247	March 10, 1972	U.S. Participation International Development Association Act	Increased U.S. participation in the International Development Association
P.L. 92-494	Oct. 14, 1972	International Agency for Research on Cancer Act	Authorized an appropriation for the annual contributions given to the International Agency for Research on Cancer
P.L. 92-500	Oct. 18, 1972	Federal Water Pollution Control Act Amendments	Revised Federal water program so as to prevent, reduce, and eliminate water pollution and to develop areawide waste treatment management planning processes
P.L. 93-82	Aug. 2, 1973	Veterans Health Care Expansion Act	Provided improved and expanded medical and nursing home care to veterans and provided hospital and medical care to certain dependents and survivors of veterans
P.L. 93-168	Nov. 29, 1973	U.S. Information Authorization Act	Authorized appropriations for USIA for FY 1974
P.L. 93-188	Dec. 15, 1973	United Nations Environment Program Participation Act	Provided for U.S. participation in United Nations Environment Program
P.L. 93-189	Dec. 17, 1973	Foreign Assistance Act	Amended Foreign Assistance Act of 1961 and endorsed private voluntary organizations involvement in foreign aid
P.L. 93-353	July 23, 1974	Health Services Research, Health Statistics, and Medical Libraries Act	Amended Public Health Service Act in order to revise programs of health services research and to extend program assistance for medical libraries
P.L. 93-373	Aug. 14, 1974	International Development Association: U.S. Participation Increase Act	Provided increased U.S. participation in International Development Association; permitted U.S. citizens to purchase gold
P.L. 93-475	Oct. 26, 1974	State Department/USIA Authorization Act, Fiscal Year 1975	Authorized appropriations for the Department of State and the U.S. Information Agency
P.L. 93-537	Dec. 22, 1974	Asian Development Bank; U.S. Participation Increase Act	Provided for increased U.S. participation in Asian Development Bank

352

Legislation: Public Laws	Date	Title	Description
P.L. 94-106	Oct. 7, 1975	Department of Defense Appropriation Authorization Act	Authorized appropriations for FY 1976 to procure weapons, aircraft, etc.; to prescribe needed personnel strength for Armed Forces
P.L. 94-165	Dec. 23, 1975	Department of the Interior and Related Agencies Appropriation Act	Made appropriations for Department of the Interior and other related agencies
P.L. 94-212	Feb. 9, 1976	Department of Defense Appropriation Act	Made appropriations for Department of Defense for FY 1976
P.L. 94-241	March 24, 1976	Commonwealth-Covenant To Establish Northern Mariana Islands	Established a Commonwealth of the Northern Mariana Islands in political union with the United States
P.L. 94-272	April 21, 1976	Fiscal Year Adjustment Act	Provided permanent changes in laws necessary because of the Oct.-Sept. fiscal year
P.L. 94-278	April 22, 1976	Health Research and Health Services Amendments	Revised and extended programs of National Research Service awards; established a national genetic diseases program and required a study and report on the release of information
P.L. 94-282	May 11, 1976	National Science and Technology Policy Organization and Priorities Act	Established U.S. science and technology policy, provided scientific and technological advice to the President, and provided comprehensive survey of ways and means for improving Federal effort in scientific research and information handling
P.L. 94-295	May 28, 1976	Medical Device Amendments	Amended Federal Food, Drug, and Cosmetic Act to provide for safety and effectiveness of medical devices intended for human use
P.L. 94-302	May 31, 1976	Inter-American Development Bank Funds Act	Provided for increased U.S. participation in the Inter-American Development Bank, entry of nonregional members and Bahamas and Guyana into Bank, and for U.S. participation in the African Development Bank
P.L. 94-303	June 1, 1976	Second Supplemental Appropriations Act	Made supplemental appropriations to Department of the Interior
P.L. 94-329	June 30, 1976	International Security Assistance and Arms Export Control Act	Amended Foreign Assistance Act of 1961 and Foreign Military Sales Act
P.L. 94-419	Sept. 22, 1976	Department of Defense Appropriations Act	Made appropriations for DOD for FY 1976

Legislation: Public Laws	Date	Title	Description
P.L. 94-455	Oct. 4, 1976	Tax Reform Act	Reformed U.S. tax laws; contained method for aggregating expenditures of related organizations; reduced mandatory annual payout percentage of foundations on investment assets
P.L. 94-469	Oct. 11, 1976	Toxic Substances Control Act	Regulated commerce and protected human health and environment by requiring testing and necessary use restrictions on certain chemical substances
P.L. 94-484	Oct. 12, 1976	Health Professions Educational Assistance Act	Amended Public Health Service Act to revise and extend programs of assistance under Title VII for training in health and allied health professions; immigration control of foreign medical students into United States
P.L. 95-83	Aug. 1, 1977	Health Services Programs Extension; Health Planning, Health Services Research, and Statistics Extension Act	Extended assistance programs for public health services for FY 1977 (No legislative services for FY 1976)
P.L. 95-95	Aug. 7, 1977	Clean Air Act Amendments	Amended Clean Air Act; included possibly of redesignation of air quality control regions; revised air quality standards to prevent significant deterioration of air quality
Legislation: United States Codes			
8 U.S.C. 1101	1952	Immigration and Nationality	Created definitions within general provisions for immigration and nationality
10 U.S.C. 1071-1088	1956	Armed Forces	Authorized medical and dental care for Department of Defense members and beneficiaries
10 U.S.C. 7203	1956	Secretary of Navy	Enabled more scientific investigation and research
12 U.S.C. 636	1945	Export-Import Bank of Washington	Stipulated powers and functions of Bank, including general banking business; use of assets and allocation or borrowing of money
15 U.S.C. 175	1912	Statistical and Commercial Information	Set forth duties of Bureau of Foreign and Domestic Commerce, including computation and publication of information concerning manufacturing industries
15 U.S.C. 313 313 (a)	1890	National Weather Service	Described duties of National Weather Service within Department of Commerce, including forecasting, issuance of storm warnings, and study of atmospheric disturbances

Legislation: United States Codes	Date	Title	Description
15 U.S.C. 1512	1902	Department of Commerce	Delineated duties of Department, including promotion and development of foreign and domestic commerce, the industries of mining, manufacturing, shipping, and fisheries, as well as transportation facilities
16 U.S.C. 742	1940	Fish and Wildlife Service	Set forth duties concerning marketing of seafood from domestic and overseas production; gave authority to cooperate with State Department to provide assistance to WHO
22 U.S.C. 287 (m-t)	1945	United Nations Organization	Authorized representation in United Nations educational, scientific, and cultural organization structure
22 U.S.C. (68 Stat. 844)	1961	Mutual Security Program	Repealed Foreign Assistance Act authorization of U.S. participation in United Nations Children's Fund
22 U.S.C. 2151	1961	International Development, Peace, and Security	Gave congressional statement of policy on international development
22 U.S.C. 2191	1961	International Development, Peace, and Security	Provided general authority for surveys of investment opportunities
22 U.S.C. 2219 (a)	1961	Foreign Assistance	Made funds available on loan or grant basis for programs relating to population growth and family planning and authorized U.S. participation in United Nations Fund for Drug Abuse Control and United Nations Fund for Population Activities
22 U.S.C. 2221 (a)	1961	Foreign Assistance	Authorized U.S. participation in United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA) and U.N. Development Program
22 U.S.C. 2291 2291 (a)	1961	Foreign Relations and Intercourse	Set up international narcotics control; U.S. participation in United Nations Fund for Drug Abuse Control
22 U.S.C. 2501 A	1961	Peace Corps	Declared encouragement of voluntary service programs by Congress
26 U.S.C. 501	1954	Internal Revenue Code	Exempted tax on corporations, certain trusts, etc.
38 U.S.C. 109	1958	Veterans' Benefits	Provided benefits for discharged members of allied forces
38 U.S.C. 230	1958	Veterans' Benefits	Authorized Veterans Administration to open regional offices abroad
38 U.S.C. 631	1958	Veterans' Benefits	Made grants available for hospital and medical care for Commonwealth of the Philippines Army veterans

Legislation: United States Codes	Date	Title	Description
38 U.S.C. 4101	1958	Veterans' Benefits	Authorized Veterans Administration to participate in medical research through a Department of Medicine and Surgery
42 U.S.C. 1862-1875	1950	National Science Foundation	Set forth functions, composition of board and employees, commissions and appropriations of National Science Foundation
48 U.S.C. 168 (a)	1905	Territories and Insular Possessions	Gave authority to Governor to assign proportion of Alaska Fund to school districts
48 U.S.C. 1421 (a)	1950	Territories and Insular Possessions	Declared Guam to be unincorporated territory
48 U.S.C. 1661	1929	Territories and Insular Possessions	Ceded acceptance of Islands of Tutuila, Manua, and eastern Samoa by United States
49 U.S.C. 1463	1958	Weather Bureau	Authorized Weather Bureau to promote safety and efficiency in air navigation
Legislation: Executive Orders			
E.O. 10211	Feb. 6, 1951		Placed in operation the provision of Section 31 of the Organic Act of Guam
E.O. 10477	Aug. 1, 1953		Authorized the Director of the U.S. Information Agency to exercise certain authority available by law to the Secretary of State and the Director of the Foreign Operations Administration
E.O. 11021	May 7, 1962		Provided for the administration of the trust territory of the Pacific Islands by the Secretary of the Interior
E.O. 11034	June 25, 1962		Set forth administration of the Mutual Educational and Cultural Exchange Act of 1961 (P.L. 87-256)
E.O. 11311	Oct. 14, 1966		Called for the carrying out of provisions of the 1948 Beirut agreement relating to audio-visual materials
Legislation: Treaties and International Agreements			
TIAS 1554 (60 Stat. 1886)	Oct. 16, 1945		Approved constitution of the Food and Agriculture Organization of the United Nations

Legislation: Treaties and International Agreements	Date	Title	Description
TIAS 1580	Sept. 30, 1946		Approved constitution of United Nations Educational, Scientific, and Cultural Organization (UNESCO)
TIAS 1808 (62 Stat. 441) (62 Stat. 2679)	July 22, 1946		Approved constitution of World Health Organization
TIAS 4891	Dec. 14, 1960		Authorized the convention on the Organization for Economic Cooperation and Development
TIAS 6919	May 19, 1970		Authorized U.S. participation in International Agency for Research on Cancer
TIAS 7542	Jan. 27, 1973		Agreed to end the war and restore peace in Vietnam
Other			
Pan-American Sanitary Code (44 Stat. 2031)	Nov. 14, 1924		Allowed entrance into sanitary convention with 17 Pan American countries to promote and protect public health of their respective countries and to achieve effective international public health measures
NATO	June 1951	NATO Status of Forces Agreement	Authorized medical and hospital care for NATO forces

Appendix 5

Special Analyses of International Health

5-A. Country-Specific Health Activities of U.S. Government Agencies (Fiscal Year 1976)

EXPLANATORY NOTES FOR 5-A

Agency	Acronym	
ACTION (PEACE CORPS)	PC	Refers to country-specific health programs using U.S. Peace Corps volunteers.
AGENCY FOR INTERNATIONAL DEVELOPMENT	AID	Refers to grants, loans, and assistance to American hospitals and schools abroad.
DEPARTMENT OF AGRICULTURE	A	Includes only the research funded through the Special Foreign Currency Program. Does not include Food for Peace Program funds.
DEPARTMENT OF COMMERCE	C	Includes only the foreign countries hosting the trade exhibits, fairs, centers, and seminar activities.
DEPARTMENT OF DEFENSE	D	Includes only the countries involved in foreign health research, health training, health facility construction activities, and health delivery services for U.S. citizens.
DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE	HEW	The foreign grants and contracts, Special Foreign Currency Program, bilateral agreements, scientific and cultural exchanges, and other health activities are included. Not included are health activities in the trust territories which the Agency considers domestic programs.
DEPARTMENT OF THE INTERIOR	I	Refers to Department of the Interior health program activities in the trust territories which are reported to the Office of Management and Budget as international health programs.
DEPARTMENT OF LABOR	L	Includes seminars on occupational health and safety.
DEPARTMENT OF STATE	S	Refers only to U.S. contributions to U.N. health program activities.
ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION	ERDA	Includes only the biomedical research activities involving populations of Nagasaki, Hiroshima, and the Marshall Islands.
ENVIRONMENTAL PROTECTION AGENCY	EPA	Includes Special Foreign Currency Programs in health research, multilateral and bilateral health cooperation agreements, and technical assistance activities.
EXPORT-IMPORT BANK	EIB	Cited are foreign countries involved in biomedical activities with the United States through commercial loans, guarantees, and insurance programs.

Agency	Acronym	
FEDERAL AVIATION ADMINISTRATION	FAA	Refers to U.S.-U.S.S.R. aeromedical research activities.
INTER-AMERICAN FOUNDATION	IAF	Cited are community development programs in foreign countries which have a health focus.
NATIONAL ACADEMY OF SCIENCES (INSTITUTE OF MEDICINE)	IOM	
NATIONAL SCIENCE FOUNDATION	NSF	Includes Special Foreign Currency Program activities, cultural and scientific exchange activities, and other health research activities with an international focus.
OFFICE OF SCIENCE AND TECHNOLOGY POLICY	OSTP	
U.S. INFORMATION AGENCY	USIA	Refers to the worldwide impact of USIA health information activities.
VETERANS ADMINISTRATION	VA	Not included are those U.S. veterans, servicemen, and their dependents receiving health training abroad through the G.I. Bill. Not included are the health training programs for foreign nationals.

Notes: This section of Appendix 5 does not represent a comprehensive listing of the international health activities of the Federal agencies. Not included are the program activities of the international development lending institutions.

Technical assistance and bilateral agreement activities are categorized according to the specific level of activity. Cultural and scientific exchange activities are included in the Training and Education category.

5-A. Country-Specific Health Activities of U.S. Government Agencies (Fiscal Year 1976)

Country	Medical and Health Related Research	Training and Education	Construction of Health Facilities	Health Program Planning and Administration	Delivery of Health Services	Disease Control	Environmental Health (Water Supply and Waste Disposal)	Regulatory, Commercial, Inspection Act
Africa								
Angola								
Benin (Dahomey)	NSF					AID		
Botswana	PC	PC			AID	PC		
Burundi								
Cameroon		HEW, AID		AID	AID			
Cape Verde Island								
Central African Empire		AID			AID			
Chad		AID		AID				
Comoro Island								
Congo								
Djibouti, Republic of								
Equatorial Guinea								
Ethiopia	D	D			D	D, AID	AID	
Gabon								
Gambia		PC			PC			
Ghana	HEW	D, AID		AID	AID	AID	AID	
Guinea-Bissau								
Ivory Coast		PC			PC	AID		
Kenya	NSF, D	D, PC, AID, HEW			AID	D		
Lesotho		AID			PC			
Liberia		AID	PC	AID	AID			
Malagasy Republic								
Malawi								
Mali		AID			AID	AID		
Mauritania								
Mauritius								
Mozambique								
Namibia (South-West Africa)								
Niger		PC			PC, AID	AID		
Nigeria		HEW		HEW	AID			
Principe Island								
Reunion								
Rhodesia								

Country	Medical and Health Related Research	Training and Education	Construction of Health Facilities	Health Program Planning and Administration	Delivery of Health Services	Disease Control	Environmental Health (Water Supply and Waste Disposal)	Regulatory, Commercial, Inspection Act
Africa *(Continued)*								
Rwanda		PC						
Senegal		AID			AID		AID	
Seychelles		PC			PC			
Sierra Leone		HEW						
Soa Tome Island								
Somalia								
South Africa	D	HEW						HEW
Sudan					AID			
Swaziland		AID			PC			
Tanzania		AID			AID			
Togo		AID				AID		
Uganda					HEW			
Upper Volta					PC	AID		
Zaire	NSF	PC, D			AID, PC	AID, PC		
Zambia								
Asia								
Bangladesh	AID	AID, HEW			AID	AID		
Bhutan								
Burma		D						
China, People's Republic of								
Democratic Kampuchea (Cambodia)								
[illegible]g Kong	HEW	HEW						
India	A, NSF, HEW	D, HEW, NSF		NSF				HEW
Indonesia	D, NSF	D, AID		AID	AID	D, AID	AID	OPIC
Japan	HEW, ERDA, NSF	NSF, HEW		HEW, NSF, EPA	D			C, EIB, HEW
Korea, Democratic People's Republic of								
Korea, Republic of	NSF	D, NSF, HEW		PC	PC, AID, D	PC	AID	C, HEW
Lao People's Republic (Laos)								

Country	Medical and Health Related Research	Training and Education	Construction of Health Facilities	Health Program Planning and Administration	Delivery of Health Services	Disease Control	Environmental Health (Water Supply and Waste Disposal)	Regulatory, Commercial, Inspection Act
Asia *(Continued)*								
Malaysia	D, HEW	D, PC, NSF, HEW			PC	C		OPIC
Nepal		PC, AID		AID	AID	AID	PC	
Pakistan	A, HEW	D, AID, HEW		NSF, AID, HEW	AID	AID	AID	OPIC
Philippines	HEW	L, D, AID, HEW			VA, PC, AID, HEW		PC, AID	C, OPIC
Sikkim								
Singapore		HEW						C
Sri Lanka	HEW	D			AID			
Taiwan (Republic of China)	D, NSF, HEW	L, D, HEW			AID, D	D		C, EIB
Thailand	D, PC, HEW	D, PC			AID	D, PC		
Vietnam								
Near East								
Afghanistan		PC, AID			PC, AID			
Algeria								
Bahrain		PC		PC				
Cyprus								
Egypt	D, EPA, NSF HEW	D, HEW, NSF	HEW	NSF, AID	AID, HEW	D, HEW	AID, HEW	C, EIB
Iran	HEW	D, HEW			D			
Iraq	HEW							
Israel	NSF, HEW	D, AID, HEW		HEW	HEW			EIB, HEW
Jordan		D, HEW		AID, HEW				
Kuwait								
Lebanon		D, HEW			AID			
Libya	HEW	HEW						
Malta								
Morocco	HEW	AID, HEW		HEW	AID, D			
Oman		PC			PC			
Quatar								
Saudi Arabia		D			D			
Syria	HEW	HEW		AID				

Country	Medical and Health Related Research	Training and Education	Construction of Health Facilities	Health Program Planning and Administration	Delivery of Health Services	Disease Control	Environmental Health (Water Supply and Waste Disposal)	Regulatory, Commercial, Inspection Act
Tunisia	HEW	PC, AID, HEW		PC, HEW	AID		AID	
Turkey	HEW	D, HEW			AID, D			
United Arab Emirates								
Yemen, Arab Republic Of		PC		PC	PC		AID	
Yemen, People's Democratic Republic of								
North America								
Canada	NSF, HEW	HEW, D						HEW
Latin America								
Argentina	D, HEW	HEW						HEW
Bolivia	NSF	D, AID, HEW			D, AID		AID	
Brazil	D, NSF, HEW, AID	L, D, PC, IAF HEW		IAF	IAF, AID	D		EIB, HEW
Chile	NSF, HEW	HEW		PC	PC, AID		AID	
Colombia	NSF, HEW	D, PC, AID, IAF		IAF, AID	IAF, PC, AID	PC	AID	EIB
Costa Rica	NSF, HEW	PC, NSF, AID, HEW			PC, AID		AID	EIB
Dominican Republic		D, PC, AID			PC, AID		AID	C, EIB
Ecuador					PC			
El Salvador	HEW	PC, AID		PC, AID	AID			
French Guiana								
Guatemala		PC, AID, HEW		AID	AID, PC		PC, AID	EIB
Guyana								
Honduras		PC, AID			PC, AID		AID	
Mexico	NSF, HEW	D, IAF, HEW			IAF	HEW		EIB, HEW
Nicaragua	PC	D, PC, AID, HEW		AID, PC	PC, AID		AID, PC	
Panama	NSF	AID			AID		AID	EIB
Panama Canal Zone		D			AID, D			
Paraguay		PC, AID			PC, AID		PC	
Peru	NSF, HEW	D, HEW			D		AID	EIB
Surinam								

Country	Medical and Health Related Research	Training and Education	Construction of Health Facilities	Health Program Planning and Administration	Delivery of Health Services	Disease Control	Environmental Health (Water Supply and Waste Disposal)	Regulatory, Commercial, Inspection Act
Latin America *(Continued)*								
Uruguay	HEW	HEW						
Venezuela	D	IAF, D						EIB
Caribbean								
Barbados								
Bahamas	NSF, HEW							
Belize		PC			PC	PC	PC	
Burmuda	NSF							
Cuba					D			
Haiti		AID, HEW		AID	AID	AID	AID	
Jamaica	HEW	AID			AID			C
Trinidad and Tobago		D						C
West Indies		D, HEW						
Europe								
Albania								
Austria	NSF, HEW	HEW						HEW
Belgium	NSF, HEW	HEW			D			HEW
Bulgaria		NSF, HEW						HEW
Czechoslovakia	HEW	HEW						
Denmark	HEW	NSF, HEW, D						HEW
Germany, Democratic Republic of								
Germany, Federal Republic of	NSF, HEW	NSF, HEW, D		EPA, NSF	D			HEW
Finland	HEW	HEW						
France	NSF, HEW	NSF, HEW, D						EIB, HEW
Greece	NSF, HEW	D, HEW			D			
Hungary	NSF, HEW	HEW						HEW
Ireland	HEW	HEW						HEW
Isle of Crete					D			
Italy	NSF, HEW, EPA	HEW, NSF		NSF	D			EIB, HEW
Luxembourg								

Country	Medical and Health Related Research	Training and Education	Construction of Health Facilities	Health Program Planning and Administration	Delivery of Health Services	Disease Control	Environmental Health (Water Supply and Waste Disposal)	Regulatory, Commercial, Inspection Act
Europe *(Continued)*								
Netherlands	NSF, HEW	HEW, D			D			HEW
Norway	HEW	HEW		NSF				HEW
Poland	HEW, A, EPA	L, NSF, HEW	HEW	HEW	AID	HEW		C, HEW
Portugal		HEW		AID			AID	HEW
Romania		L, D, HEW, NSF		NSF				EIB, HEW
Spain	NSF, HEW	D, HEW		NSF	D			C, HEW, EIB
Sweden	NSF, HEW	NSF, HEW						C, EIB, HEW
Switzerland	NSF, HEW	HEW						EIB, HEW
United Kingdom	NSF, HEW	NSF, HEW			HEW, D			HEW
U.S.S.R.	EPA, HEW, NSF, FAA	D, NSF, HEW		HEW		HEW		
Yugoslavia	EPA, HEW	L, HEW		HEW				HEW, EIB
Oceania								
Australia	NSF, HEW	HEW, NSF		NSF				
Azores					D			
British Solomon Islands					PC			
Fiji		PC			PC	PC		
Gilbert & Ellice								
Greenland					D			
Iceland	HEW	HEW						
Micronesia								
Papua New Guinea								
Western Samoa	PC	PC			PC	PC		
Other Islands								
American Samoa		I	I		I	I		
Cayman								EIB
Diego Garcia					D			

Country	Medical and Health Related Research	Training and Education	Construction of Health Facilities	Health Program Planning and Administration	Delivery of Health Services	Disease Control	Environmental Health (Water Supply and Waste Disposal)	Regulatory, Commercial, Inspection Act
Other Islands *(Continued)*								
Guam					D			
Marshall	ERDA							
Okinawa		D			D			
Tonga	PC			PC	PC	PC		
Trust Territories of the Pacific		I	I		I	I		
Worldwide	EPA, S, NSF, HEW	EPA, S, NSF, HEW, USIA		EPA, S, NSF, HEW, OSTP, IOM	S	S, HEW	S	EPA

5-B. International Health Activities in Research by the U.S. Government, Fiscal Year 1976 (in Thousands of Dollars)*

	U.S. Government Agency						
Research Activity	Agency for International Development	Department of Health, Education, & Welfare	Department of Defense	Energy Research and Development Administration	National Science Foundation	Environmental Protection Agency	Department of Agriculture
Agency Total $113,484	$39,322[1]	$39,300[2]	$22,939[3]	$6,593[4]	$5,013[5]	$2,533[6]	$1,464[7]
Biomedical Research and Development		28,300		6,593	3,199		
Population and Family Planning and Development	25,974						
Health Services Research	2,249	900					
Nutrition	3,053						1,464
Tropical Disease	7,138	4,600	16,496 Army 6,443 Navy				
Environmental Health	420	100			1,562	2,533	
Health Planning	488						
Mental Health		1,500					
Disaster Preparedness							
Alcohol and Drug Abuse		1,200			5		
Veterinary Medicine[8]							
Occupational Health and Safety[9]							
Social Science Research		2,700			247		

*Includes health-related research in developing and developed countries. The total obligations for international health research reflected in this matrix are indicative of research performed in an international forum (as opposed to the total volume of international health research performed domestically and internationally). These funds only reflect the marginal cost for health research collaboration or the costs actually incurred overseas.

EXPLANATORY NOTES FOR 5-B.

[1] AID does not receive Special Foreign Currency Program research funds.

[2] Includes $3,320,000 in Special Foreign Currency Program health research funds. Total Special Foreign Currency Program health research funds are included for the Rehabilitation Services Administration (RSA), Social Rehabilitation Service (SRS), and Public Health Service (SRS and RSA were separated in 1975).

[3] Includes $1,685,000 in Special Foreign Currency Program health-related research funds. The funding figure also includes obligations for foreign health research laboratories.

[4] Special Foreign Currency Program funds for health research were not obligated in FY 1976.

[5] Special Foreign Currency Program funds were estimated to be $130,865 for health research.

[6] Includes $2,385,572 in Special Foreign Currency Program health research funds.

[7] Total funds are Special Foreign Currency Program health research monies.

[8] Funds for these activities as they relate to human health are unavailable from existing data.

[9] Funds for these activities are allocated in other categories on this table.

Appendix 6

Bibliography

American Council of Voluntary Agencies for Foreign Service, Inc. 1973. A Listing of U.S. Non-Profit Organizations in Medical and Public Health Assistance Abroad. New York: TAICH.

Berg, Alan and Muscat, Robert J. 1973. The Nutrition Factor: Its Role in National Development. Washington, D.C.: The Brookings Institution.

Bloem, K. et al., eds. 1976. Proceedings of the Working Conference on Appropriate Technology in Health in Developing Countries. Washington, D.C.: National Council for International Health.

Bryant, John. 1975. Health and the Developing World. Ithaca: Cornell University Press.

Brzezinski, Zbigniew. 1970. Between Two Ages: America's Role in the Technetronic Era. New York: Viking.

Cahill, Kevin M. 1971. The Untapped Resource: Medicine and Diplomacy. Maryknoll, N.Y.: Orbis Books.

Caribbean Working Group (Office of International Health, HEW). May 1977. Commonwealth Caribbean Health Sector Study: The health Sector in Perspective. Rockville, Md.: U.S. Government Printing Office.

Commission on Private Philanthropy and Public Needs. 1975. Giving in America: Toward a Stronger Voluntary Sector. Washington, D.C.: Commission on Private Philanthropy and Public Needs.

Cowan, James R. and Burke, Thomas R. 1976. The evaluation of military medicine. Health in America 1776-1976. Washington, D.C.: U.S. Government Printing Office.

Delaney, F.M. and Akhtar, S. 1975. Low-Cost Rural Health Care and Health Manpower Training; An Annotated Bibliography With Special Emphasis on Developing Countries. Ottawa, Ont.: International Development Research Centre.

Department of State. December 1970. Diplomacy for the '70's: A Program of Management for the Department of State. (Publication 8551) Washington, D.C.: U.S. Government Printing Office.

Dubos, Rene. 1972. Man Adapting. New Haven, Conn.: University Press.

Fikry, M. March 1977. Traditional Maternal and Child Health Care and Related Problems in the Sahel, a Bibliographic Study. Agency for International Development contract – draft report. Washington, D.C.

Fogarty International Center, John E. 1976. National Institutes of Health Annual Report of International Activities: Fiscal Year 1975. Washington, D.C.: U.S. Government Printing Office.

Fogarty International Center, John E. 1976. National Institutes of Health International Awards for Biomedical Research and Research Training, Fiscal Year 1975. Washington, D.C.: U.S. Government Printing Office.

Fogarty International Center, John E. 1976. National Institutes of Health Statistical Reference Book of International Activities, Fiscal Year 1975. Washington, D.C.: U.S. Government Printing Office.

Health Resources Administration (HEW). June 1975. Proceedings of the International Conference on Women in Health. (HRA 76-51) Washington, D.C.: U.S. Government Printing Office.

Health Resources Administration. 1976. Baselines for Setting Health Goals and Standards. (HRA 76-640) Washington, D.C.: U.S. Government Printing Office.

Huddle, Franklin P. 1970. Toward a New Diplomacy in a Scientific Age. In Science, Technology, and American Diplomacy Series, prepared for the Subcommittee on International Security and Scientific Affairs of House Committee on International Relations. Washington, D.C.: U.S. Government Printing Office.

Huddle, Franklin P. 1975. Science and Technology in the Department of State: Bringing Technical Content Into Diplomatic Policy and Operation. In Science, Technology, and American Diplomacy Series, prepared for the Subcommittee on International Security and Scientific Affairs of House Committee on International Relations. Washington, D.C.: U.S. Government Printing Office.

Huddle, Franklin P. 1976. Science, Technology, and Diplomacy in the Age of Interdependence. In Science, Technology, and American Diplomacy Series, prepared for the Subcommittee on International Security and Scientific Affairs of House Committee on International Relations. Washington, D.C.: U.S. Government Printing Office.

International Bank for Reconstruction and Development. March 1975. Health. Washington, D.C.: World Bank.

International Labor Organization (International Labor Office). 1977. Employment, Growth, and Basic Needs: A One-World Problem. New York: Praeger.

Josiah Macy, Jr. Foundation. July 1974. Proceedings of the MACY conference on teaching tropical medicine. American Journal of Tropical Medicine and Hygiene. Volume 23. Lawrence, Kansas: Allen Press, Inc.

Laskin, M.J. 1977. Commonwealth Caribbean Health Sector Study; Programming Options in the Commonwealth Caribbean Health Sector. Rockville, Md.: Department of Health, Education, and Welfare; Office of International Health.

Laudicina, Paul A. October 1973. World Poverty and Development: A Survey of American Opinion. (Monograph 8) Washington, D.C.: Overseas Development Council.

Loomis, S.A. and Cox, K. 1977. Comparative Analysis of Health Manpower Issues in Latin America. Rockville, Md.: Department of Health, Education, and Welfare; Office of International Health; Division of Program Analysis.

McNamara, Robert S. 1977. Address to the Massachusetts Institute of Technology. Washington, D.C.: International Bank for Reconstruction and Development.

Milch, Robert A. 1968. Policy Determination for United States Government Programs in International Health. Washington, D.C.: Executive Office of the President; Office of Science and Technology.

Miller, George E., ed. September 1976. Medical Education and the Contemporary World. Bethesda, Md.: Department of Health, Education, and Welfare; National Institutes of Health; Fogarty International Center.

Miller, George E. and Fulop, Tamas, eds. 1974. Educational Strategies for the Health Professions. Public Health Paper #61. Geneva: World Health Organization.

Missions Advanced Research and Communication Center. 1970. North American Protestant Ministries Overseas. Monrovia, Calif.: Missionary Research Library.

National Institute of Allergy and Infectious Diseases. 1976. Sure Foundations. Washington, D.C.: U.S. Government Printing Office.

Omrar, A.R. 1974. Community Medicine in Developing Countries. New York: Springer Publishing Company.

Overseas Development Council. 1976. The United States and World Development: Agenda 1977. New York: Praeger.

Pan American Health Organization. 1974. First Pan American Conference on Health Manpower Planning. Scientific Report No. 279. Washington, D.C.: World Health Organization.

Pennell, Maryland and Showell, Shirlene. June 1975. Women in Health Careers. Washington, D.C.: American Public Health Association.

Quimby, Freeman H. 1971. The Politics of Global Health. In Science, Technology, and American Diplomacy Series, prepared for the Subcommittee of International Security and Scientific Affairs of the House Committee on International Relations. Washington, D.C.: U.S. Government Printing Office.

Rouleau. 1964. Review of International Health Research. Washington, D.C.: Department of State; Science and Technology Division.

Seidman, Harold. 1975. Politics, Position, and Power: The Dynamics of Federal Organization (Second edition). New York: Oxford University Press.

Sewell, J.W. and Staff of the Overseas Development Council. 1977. The United States and World Development: Agenda 1977. New York: Praeger.

Shannon, James A. July 1976. Federal support of biomedical sciences: development and academic impact. Journal of Medical Education. Volume 51, No. 7, Part 2. Washington, D.C.: Association of American Medical Colleges.

Subcommittee on International Security and Scientific Affairs of the Committee on International Relations, U.S. House of Representatives. 1975. Science and Technology in the Department of State: Bringing Technical Content into Diplomatic Policy and Operations. Washington, D.C.: U.S. Government Printing Office.

Subens, Rosemary and Vermeulen, Joan. June 1972. Foreign Trained Physicians and American Medicine. U.S. Department of Health, Education, and Welfare. Washington, D.C.: U.S. Government Printing Office.

Tinbergen, Jan (Coordinator). 1976. Reshaping the International Order, a Report to the Club of Rome. New York: E.P. Dutton and Co., Inc.

U.S. Agency for International Development. November 1974. Health Program Strategy. Draft. Washington, D.C.

U.S. Agency for International Development. January 1975. A Directory of Institutional Resources; U.S. Centers of Competence for International Development. Washington, D.C.: U.S. Government Printing Office.

U.S. Agency for International Development. 1975. Implementation of "New Directions" in Development Assistance; prepared for U.S. House of Representatives, Committee on International Relations. Washington, D.C.: U.S. Government Printing Office.

U.S. Agency for International Development. 1976. P.L. 480 Food Aid; Food for Peace Program. Washington, D.C.: U.S. Government Printing Office.

U.S. Agency for International Development, Advisory Committee on Voluntary Foreign Aid. October 1974. A Look to the Future: The Role of Voluntary Organizations in International Assistance. Washington, D.C.: U.S. Government Printing Office.

U.S. Congress, House Committee on Foreign Affairs. 1974. Brain Drain: A Study of the Persistent Issue of International Scientific Mobility, prepared for the Subcommittee on National Security Policy and Scientific Development. Washington, D.C.: U.S. Government Printing Office.

U.S. Congress, House Committee on International Relations. 1977. New Directions in Development Aid: Excerpts From the Legislation (as of January 1977). Washington, D.C.: U.S. Government Printing Office.

U.S. Congress, House Committee on Science and Astronautics, Subcommittee on Science, Research, and Development. December 22, 1976. The Participation of Federal Agencies in International Scientific Programs. Washington, D.C.: U.S. Government Printing Office.

U.S. Congress, Senate Committee on Foreign Relations. April 1975. The Role of Advisory Committees in U.S. Foreign Policy. Washington, D.C.: U.S. Government Printing Office.

U.S. Congress, Senate Committee on Government Operations. 1959. International Medical Research. Washington, D.C.: U.S. Government Printing Office.

U.S. Congress, Senate Committee on Government Operations. 1959. Status of World Health in Outline Text and Chart. Washington, D.C.: U.S. Government Printing Office.

U.S. Congress, Senate Committee on Government Operations. 1959. Statutory Medical and Health-Related Research in the United States Government: The Basis for International Cooperation. Washington, D.C.: U.S. Government Printing Office.

U.S. Congress, Senate Committee on Government Operations. 1961. The U.S. Government and the Future of International Medical Research. Hearings, Appendix on Overseas Medical Research and Assistance; Parts I, II, and III. Washington, D.C.: U.S. Government Printing Office.

U.S. Congress Senate Committee on Government Operations. February 1977. U.S. Participation in International Organizations. Washington, D.C.: U.S. Government Printing Office.

U.S. Congress, Senate Committee on Government Operations, Subcommittee on Reorganization and International Organizations. 1961. U.S. Government and the Future of International Medical Research. (86th Congress, 2nd Session.) Washington, D.C.: U.S. Government Printing Office.

U.S. Department of Commerce; Domestic and International Business Administration. Foreign Business Practices: Materials on Practical Aspects of Exporting, International Licensing, and Investing. Washington, D.C.: U.S. Government Printing Office.

U.S. Department of Health, Education, and Welfare; U.S. Department of State; and Agency for International Development. November 9, 1965. International Cooperation in Health and Sanitation Programs: A Review of the Contribution of the United States, With Particular Emphasis on the U.S. Government, for International Cooperation Year. Washington, D.C.: U.S. Government Printing Office.

U.S. Department of State. December 1974. Voluntary Foreign Aid Programs. Washington, D.C.: AID.

U.S. Department of State. January 1977. Report to the Congress for FY 1975: United States Contributions to International Organizations. (International Organization and Conference Series 125, House Document 95-11) Washington, D.C.: U.S. Government Printing Office.

Weinstein, Paul P. 1973. Parasitology and the U.S. Public Health Service—A relation of a science and government. Journal of Parasitology. Vol. 59, pp. 3-14. Lawrence, Kansas: American Society of Parasitologists.

World Bank. March 1975. Health: Sector Policy Paper. Washington, D.C.: World Bank.

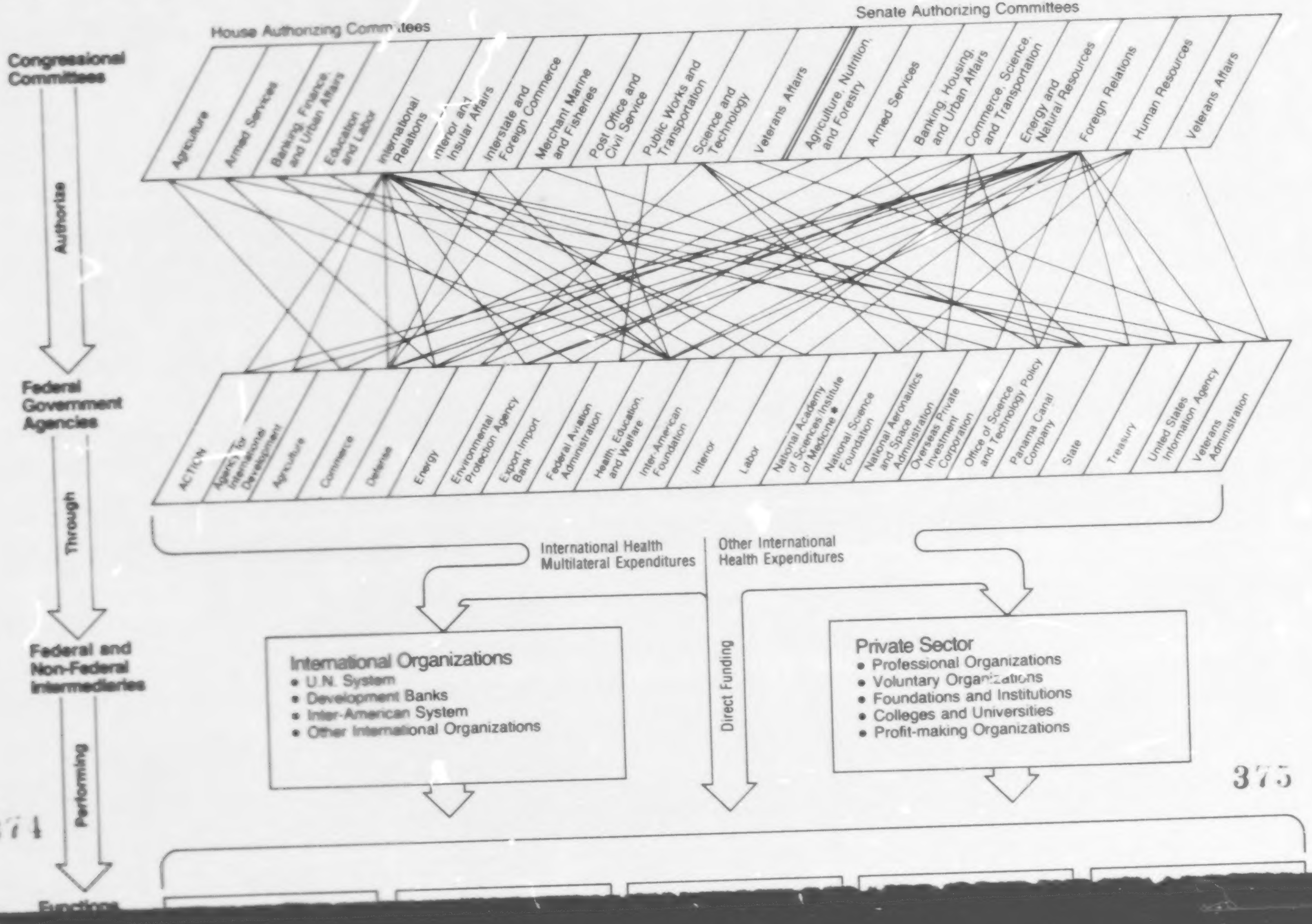
World Health Organization. 1973. Development of Educational Programmes for the Health Professions. Public Health Papers No. 52. Geneva: World Health Organization.

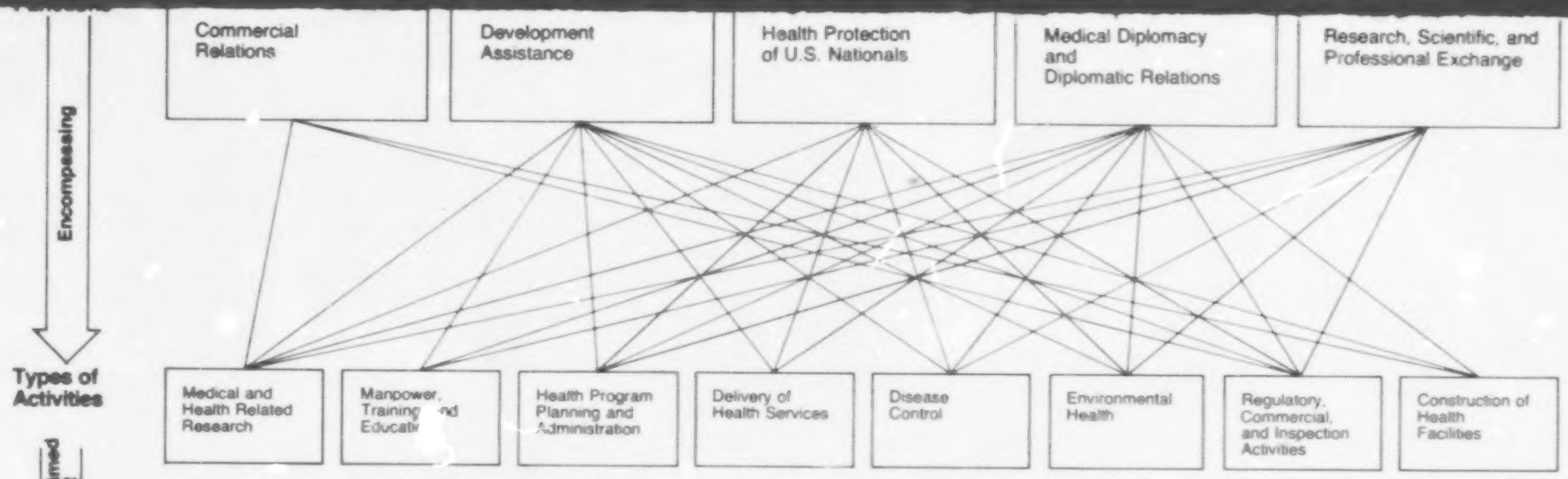
World Health Organization. 1976. Reference Material for Health Auxiliaries and Their Teachers. WHO Offset Publication No. 28. Geneva: World Health Organization.

World Health Organization. 1976. Special Programme for Research and Training in Tropical Diseases. Geneva: WHO.

☆ U.S. GOVERNMENT PRINTING OFFICE : 1979 O—287-[illegible]

Figure 1
United States Government Role in International Health


Congressional Committees
Authorize
House Authorizing Committees
Agriculture
Armed Services
Banking, Finance, and Urban Affairs
Education and Labor
International Relations
Interior and Insular Affairs
Interstate and Foreign Commerce
Merchant Marine and Fisheries
Post Office and Civil Service
Public Works and Transportation
Science and Technology
Veterans Affairs
Senate Authorizing Committees
Agriculture, Nutrition, and Forestry
Armed Services
Banking, Housing, and Urban Affairs
Commerce, Science, and Transportation
Energy and Natural Resources
Foreign Relations
Human Resources
Veterans Affairs
Federal Government Agencies
Through
ACTION
Agency for International Development
Agriculture
Commerce
Defense
Energy
Environmental Protection Agency
Export-Import Bank
Federal Aviation Administration
Health, Education, and Welfare
Inter-American Foundation
Interior
Labor
National Academy of Sciences Institute of Medicine *
National Science Foundation
National Aeronautics and Space Administration
Overseas Private Investment Corporation
Office of Science and Technology Policy
Panama Canal Company
State
Treasury
United States Information Agency
Veterans Administration
International Health Multilateral Expenditures
Other International Health Expenditures
Federal and Non-Federal Intermediaries
International Organizations
• U.N. System
• Development Banks
• Inter-American System
• Other International Organizations
Direct Funding
Private Sector
• Professional Organizations
• Voluntary Organizations
• Foundations and Institutions
• Colleges and Universities
• Profit-making Organizations
Performing
Functions


Commercial Relations
Development Assistance
Health Protection of U.S. Nationals
Medical Diplomacy and Diplomatic Relations
Research, Scientific, and Professional Exchange
Encompassing
Types of Activities
Aimed at
Medical and Health Related Research
Manpower, Training and Education
Health Program Planning and Administration
Delivery of Health Services
Disease Control
Environmental Health
Regulatory, Commercial, and Inspection Activities
Construction of Health Facilities

Programs and Target Groups

Agriculture
- Cooperative nutritional research * ○● ◆

AID
- Introduction of new food technologies * ◆
- Health services research * ◆
- Demographic data collection * ◆
- Fertility control research * ◆
- Development of indigenous foods * ◆
- Disaster preparedness research * ◆ ●

Commerce
- Standards development and applied technology * ○●

Defense
- Infectious disease research related to tropical medicine * ○

Energy
- Biomedical research of populations exposed to nuclear fallout * ○ ●

FAA
- Joint U.S.-U.S.S.R. research on medical aspects of flight ○■●

HEW
- Laboratory support and collaboration ◆
- Cooperative research through NIH; NCI; NHLBI; NIAID; NIAMDD; NICHD; NIEHS * ○●
- Intramural food and

AID
- Manpower and institutional development * ◆ ●
- Health auxiliary training * ●
- Health education * ◆
- International health training programs * ◆

Commerce
- Education and cultural exchange * ○■◆

Defense
- Education and training *

EPA
- Research training in environmental protection
- Education and cultural exchange ○■◆

HEW
- Scholars-in-residence program at NIH ◆
- International visitors program (NIH) ◆
- International research exchange program (NIH) ◆
- International education programs (NIH) ◆
- Research training (HRA) ◆

Labor
- Seminars on health topics ◆

NSF
- Education and cultural exchange * ○■◆

USIA
- Exhibits and broadcasts on occupational

ACTION
- Health planning activities *

Agriculture
- Policy formulation for food and nutrition projects of the IFIs *

AID
- Organizing medical services *
- Health planning * ◆ ●
- Population planning * ◆ ●
- Nutrition planning * ◆ ●
- Environmental health planning * ◆ ●
- Technical cooperation with international organization * ◆ ●
- Special foreign currency program administration * ◆ ●
- Administration of existing health programs *

EPA
- Environmental policy development ○●

HEW
- Coordination of NIH international research activity ◆
- International organization representation and policy development * ○■ ○
- Administration of bilateral scientific agreements * ○ ◆
- Special foreign currency program

ACTION
- MCH services *
- Nutrition services *
- Medical services *
- Medical services to volunteers ○
- Disability/mental illness services ○

Agriculture
- Nutrition services/technical assistance *

AID
- Delivery of medical services * ●
- Population planning services * ●
- Emergency relief services * ●
- American schools and hospitals abroad * ○ ○ ●
- Food fortification * ●

Defense
- Health care services for DOD eligible beneficiaries ○
- Disaster relief *

IAF
- Health services delivery ○

Panama Canal Company
- Delivery of health services to Panamanians and other Latins as requested by American Embassy *
- Emergency ad hoc support to disaster victims ●

State
- Emergency ad hoc medical support * ○ ●
- Medical services to AID, State, and USIA employees * ○

V.A.
- Financing outpatient and inpatient services for Philippine veterans ○

ACTION
- Immunization campaigns *

AID
- Disease prevention and control programs (malaria, schistosomiasis, etc.) * ○■ ○ ●

HEW
- Disease prevention and control (technical services through CDC) * ●
- Epidemiological intelligence at home and abroad (CDC) * ○ ●

Panama Canal Company
- Disease control in Panama * ○

ACTION
- Environmental health programs worldwide (water supply and sanitation) *

AID
- Water supply and sanitation programs * ●

Panama Canal Company
- Environmental health in Panama * ○

EPA
- Technical assistance in environmental health * ●

Commerce
- Market research * ○■
- Trade seminars * ○■●
- Trade missions and centers * ○■●
- Trade fairs * ○■●

Export-Import
- Loan guarantees and insurance for export of biomedical equipment and health facility construction material * ○■

HEW
- Inspection of foreign firms' products *■

OPIC
- Loan guarantees and insurance for
  - a) medical supplies and equipment
  - b) projects in clinics, health education and nutrition
  - c) construction of health facilities *■

Treasury
- Oversight of commercial relations ■

Export-Import
- Loan guarantees and insurance for export of health facility construction material * ○■

OPIC
- Guarantees loans and insurance to promote private-sector investment in the construction of health facilities *■

drug research •

- **Research on the prevention and control of mental illness and drug abuse** ☆•
- Social welfare research •◆
- Health services research •◆
- Epidemiological research •○◆
- Monitoring adverse drug reactions •
- Geographic health studies ★☆◆

NASA

- Communications satellite ★☆■◆●
- Satellite remote sensing ★☆■◆●

health and safety ★☆■◆●

V.A.

- **Post-graduate training of foreign nationals in the U.S.** ★☆•○◆

- Ground-based water treatment plant ★•◆●

NSF

- International cooperation in studies on environment, biology, tropical and communicable diseases ★☆•◆

administration ★◆

- **International health representatives committee** ★☆•◆
- Integration of domestic and international activities •
- Technical health planning and geographic area assessments ★

IAF

- Health planning and administration ★

NAS/IOM

- Analysis of international biomedical research programs in the U.S. ★☆◆

OSTP

- Governmentwide science and technology policy ★☆■◆

State

- Assessed contributions to U.N. system agencies ★☆
- Science attachés/consuls ★☆•◆
- Policy, monitoring, and representation for international organizations ★☆

- Management oversight of U.S. bilateral science and technology agreements★☆◆
- Administration for emergency medical treatment for U.S. citizens traveling abroad •

Treasury

- Assessed contributions to the development banks ★

Target Groups

★ Developing Nations
☆ Developed Nations
• U.S. Nationals at Home
○ U.S. Nationals Living or Traveling Abroad
■ U.S. Business Community
◆ U.S. and Foreign Medical and Scientific Community
● Disaster Victims

●Listed as a quasi-official agency in the 1977-78 Government Manual

CE 020 502